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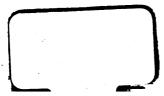
JAMES WALKER

(Class of 1814)

President of Harvard College

"Preference being given to works in the Intellectual

and Moral Sciences"



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HORÆ PHRENOLOGICÆ

BEING THREE

PHRENOLOGICAL ESSAYS:

I.—ON MORALITY;

II.—ON THE BEST MEANS OF OBTAINING HAPPINESS;

III.—ON VENERATION.

By JOHN EPPS, M.D.

LECTURER ON MATERIA MEDICA AND CHEMISTRY, MEMBER OF THE EDINBURGH PHRENOLOGICAL SOCIETY, MEMBER AND SECRETARY OF THE LONDON PHRENOLOGICAL SOCIETY, AND AUTHOR OF THE "INTERNAL EVIDENCES OF CHRISTIANITY DEDUCED FROM PHRENOLOGY."

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PREFACE,

CONTAINING A

BRIEF OUTLINE OF PHRENOLOGY.

Phrenology claims to itself the dignity of being that system which exhibits a true knowledge of the human mind. Viewed as a science, it embraces an acquaintance with the mental powers, their combinations, and the laws regulating their action: as an art, the practice of ascertaining by examination of the Head the powers of the mind, and the means of improving the physical or material constitution of the brain, and of the nervous system. Thus, its range is very extensive, and a brief outline is here to be attempted.

It is a fact well known to every, even the most superficial observer of human na-

ture, that men differ very considerably in their dispositions, and in the powers of their intellect. There is a gradation in the possession of moral feeling from the untutored and uncultivated savage to the highly sensible, civilized, and moral Christian. A gradation, in like manner, exists between an idiot and a Newton, a country rustic and the intellectual philosopher. These differences are allowed by all; but concerning their causes and the circumstances necessarily connected with them, there has been much dispute. One class of individuals, the metaphysicians, ascribe all such differences to the influence of circumstances, not allowing of any innate peculiarities of disposition, or powers of intellect. Common-sense people, a very important class, have always maintained the contrary to this. They assert that different individuals are born with diverse dispositions and powers, and the proof of this opinion being general among mankind, is found in the many proverbial expressions indicative of these original mental differences.

Phrenologists agree with the latter, and consequently differ from the former class. They add this, that these differences in disposition and in intellect, are connected with diversities in the BRAIN, the part of the body through which the mind exhibits itself in this world. They call the brain the organ of the mind, and do not consider it to be the mind itself; but to be to the mind as a machine is to the workman.

They maintain, moreover, the brain to be a whole, and like other wholes, made up of parts. These parts have different offices attached to them; which offices or duties, as attached to these particular portions, have been discovered by frequent and long-continued observations. It has been found in addition, that whenever any particular part of the brain is large, the power, whether of disposition or of intellect, connected therewith, is proportionably strong; when the part is small, the converse holds good.

Indeed, the Phrenologists consider the following as three fundamental principles: First, that the brain is the organ of the

mind; Second, that the different parts of the brain have different functions, offices, or duties attached to them; and, Third, that the size of these parts is an index of their power.

The first principle is allowed even by Anti-Phrenologists; the second can be easily established or overturned by observation; the Phrenologists hold that it is established; and with respect to the third, the principle is exhibited throughout nature.

Allowing these principles to be true, a question arises, can the situation and the size of the different parts of the brain be obtained by examination of the HEAD? The best answer to this, perhaps, is found in the fact, that the science of Phrenology has been discovered by observing the peculiarities in the formation and the shape of the head. The head is in the same relation to the brain, as the crab's shell to its body; the hard parts are of the exact form of the soft parts. The brain moulds the skull; this part, afterwards bony, being, at first,

soft and cartilaginous. It consists of two tables, as its bony plates are called, lying parallel to each other, having between them a soft substance called the diplöe. These two tables correspond to each other, so that the head, in a state of health, may be considered to be exactly the shape of the brain: hence any particular developement of any particular part of the brain, is indicated by a corresponding rounded developement of that part of the head lying external to it.

"The discoveries of Dr. Gall embrace two sets of things in their nature most distinct,—the Mental Faculties and the Organs by which they are manifested."* These faculties are classed under two great divisions; the Affective, or those which feel Emotions which may be named Feelings; and the Intellect or Faculties which procure and digest Knowledge. Each class has two orders; the first, comprising those common to man and the lower animals;

^{*} Crook's "Compendium of Phrenology," p. 7. A most useful little work, in which some interesting views are unfolded.

the second, those peculiar to human nature. Those feelings common, are called the Animal Feelings; those peculiar, the Human or Moral: and those Intellectual Faculties which are Common, are generally the Perceptive, which "form Ideas and Conceptions respecting the Existence, Qualities, Properties, and Relations of the External World." Those Intellectual Faculties that belong particularly to man, are the Reflective. These constitute the general power called Reason.

A table of these faculties may be given:

MENTAL FACULTIES.

CLASS I. AFFECTIVE, or Feelings.

ORDER I .- FEELINGS COMMON.

1. Amativeness.... Sexual desire.

2. Philoprogenitive-

ness Affection for offspring.

- 3. Inhabitiveness .. Attachment for particular places 4. Adhesiveness .. Attachment to particular persons
- 5. Combativeness.. Boldness-Courage.

6. Destructiveness.. The destructive energy.

- 7. Gustativeness... Discrimination of tastes and flavours.
- 8. Acquisitiveness. . Desire to possess.
- 9. Secretiveness.... Fondness for secrecy.

,
 Cautiousness Apprehension of danger. Love of Approba- Desire of the esteem and aption proval of others. Self-Esteem The feeling of personal dignity.
Order II.—Feblings peculiar to Man.
13. Firmness Feeling of determination. 14. Justice or Consci-
entiousness The feeling of moral fitness. 15. Hope Expectation of some good. 16. Ideality Feeling of the beautiful and the perfect.
17. Marvellousness Disposition to believe in things that transcend the usual course of nature.
18. Imitation Inclination to copy.
19. Benevolence
20. Veneration Reverence for superiors.
${\bf CLASS~IIINTELLECTUAL~FACULTIES}.$
ORDER I PERCEPTIVE.
 Individuality To perceive individual objects. Form To note configuration or shape. Size To note magnitude or dimension. Weight To estimate gravity. Colour The perception of hues and tints. Order To mark the disposition of things.
27. Number The properties of numbers. 28. Constructiveness Fondness for contrivance. The properties of sound.
30. Time To perceive duration. 31. Locality To perceive space with its rela-

ORDER II .- REFLECTIVE FACULTIES.

33. Comparison Perception of the agreement and congruity of ideas.

34. Causality Perception of cause and effect.

35. Wit Perception of the disjunction or incongruity of ideas.

The last faculty is that of 36. Language Power of learning words.

This arrangement, with some modifications, is the one adopted in the work already quoted; and from the same, some further general observations, modified to our purpose, may be taken. Upon a review of the Faculties, the following series of facts demand especial attention. In class I., the disposition of the organs is very striking. The first four faculties-Amativeness, Philoprogenitiveness, Inhabitiveness, and Adhesiveness, occupying the posterior and lower region of the head; form the group of the Domestic affections. The general object of the next group-Combativeness, Destructiveness, and Gustativeness, situated in the line extending from the back to the side-ridge on the

forehead, is the Preservation of the animal life. Acquisitiveness, Secretiveness, Cautiousness, situated in the line above the former, are the Prudential group. Love of Approbation, Self-Esteem, Firmness, and Justice, occupy the posterior and upper regions of the head, and Regulate, though in very different ways, the activity of the other feelings. We trace in Hope, Ideality, and Marvellousness, a group of Imaginative faculties. And finally, in Imitation, Benevolence, and Veneration, the Beneficent group whose only delight is to promote the present and future happiness of all the creatures of God.

In the 2nd Class, the line of organs at the lowest part of the forehead, beginning with Individuality and ending with Number, may be called the OBSERVING group; the line in the middle of the forehead, from Contructiveness to Eventuality, the Scientific group; and at the summit of the forehead, is placed the group of the Reasoning faculties. There is no analogous function to coalesce with the faculty of

language, but it is the servant of all; and we accordingly find its organs in the lowest place, and in the midst of those which furnish the materials for its exercise.

Having thus given this general view of the offices and the operations of the faculties, and of the localities of their organs, this Introduction may be concluded by a few cursory observations on some particular points, which are looked upon as pertaining to Phrenology, but which are, in reality, not by any means at all connected with its principles.

One very common observation made by persons unacquainted with Phrenology, is in the form of a wish: "I hope I have none of the bad faculties." The science of Phrenology knows nothing of bad faculties: all are good, when in proper exercise. Acquisitiveness, misdirected, renders its possessor a miser; but Benevolence, called by the same individuals a good faculty, is equally liable to abuse, being, if not properly directed, the cause of the neglect of that moral duty, embodied in the phrase,

"Be just before you're generous." Destructiveness is often abused, as being the organ of murder. This view also is erroneous. Murder is the abuse of Destructiveness. This faculty was not given to make men murderers. The arm is sometimes used to knock down a fellow-creature; but who argues that this is the proper use of this part of the body, and who considers the arm as a bad portion of his frame, because thus improperly used?

It is, in addition, very frequently remarked, that Phrenology is opposed to religion. The following Essays will, perhaps, afford the best reply hereto. But the opposite extreme is gone to, and the question is asked, "What can Phrenology have to do with religion?" The answer is the following: religion has a reference to the human mind: it claims the important office of regulating the mental operations, and, in order to fulfil the same, presents motives leading to action. Now it is evident, that the way by which these motives come to be influential, will be better understood, and

their suitableness, as the means to the end, will be more clearly discovered, when an accurate knowledge of the human mind is possessed. Such a knowledge Phrenology presents; and therefore this science has an intimate connexion with religion. It is hoped that the following pages will render apparent this circumstance, that Phrenology is a very efficient handmaid of true religion, and a most determined foe of false.

Phrenology is opposed in another way. The opposition assumes the form of the following objection. "The Phrenologists have so many faculties, and some quite the antipodes of the others." But such an objection arises from a forgetfulness of the facts, testified to by many moralists, that man is apparently "a bundle of inconsistencies." No system, but that of Phrenology, can explain these inconsistencies. Thus, a benevolent man is often very passionate: the Phrenologist asks his opponent to explain this contrariety. The only explanation offered is, "his passion gets the

better of him." But, how? the Phrenologist next inquires. The answer can be given only when it is known, that the faculties of Benevolence and of Destructiveness exist in the same individual. This solves the mystery.

But let it be ever remembered, that properly, there is no opposition between the faculties. The opposition arises from the faculties not being properly balanced. The Animal Feelings should be the servants of the Moral Feelings and Intellect, called the higher faculties. Instead hereof, they often assume the sovereignty; against which usurpation the Moral Feelings are excited; and hence the opposition.

INTRODUCTION.

THE cause of the following Essays being published originated in the desire expressed for the perusal of the same, by those who heard them delivered, in the form of Lectures or Conversations, at the London Phrenological Society. A fear of publishing, for a long time, restrained the author from acceding to the request of many intelligent individuals; but at length the desire was so powerfully expressed, that the determination was come to of offering the Essays to the public. This brief statement will make it evident to the reader, that the thoughts therein presented have not been quite lately obtained, or the conclusions, thence drawn, prematurely arrived at. The Essays, indeed, embody thoughts which the Essayist has delighted to digest in his moments of retirement; and has been, for upwards of a

year, continually engaged in practically applying. He believes that the science of Phrenology enables an individual to think with the greatest advantage; and any ease and perspicuity, exhibited in the treatment of the subjects embraced in these Essays, he attributes to the guidance which the Phrenological science, as a true system of the human mind, has afforded. At the same time, he is aware that many of the views herein brought forward may be in opposition to some current at the present day: but, in the conviction that a desire to do good has been his object, the Essayist launches his little bark on the wide ocean of public opinion, knowing that, though it have many currents of errors, and billows of prejudice to contend with, yet, if well planked with the solid bulwarks of truthing it will survive every storm, and, carried onby the small but powerful current of truth. will at last be unloaded on those happy shores where the benefit of man and the glory of God illuminate every eye and quicken every heart.

A SYSTEM, &c.

Phrenology being the true science of human nature, it must happen that every thing referring to this nature must be better understood by those individuals in possession of this science than by others. Every one, who has examined the progress of scientific truth, is aware of the influence therewith connected. The mind is freed from error; light is diffused where darkness previously existed; and the general state of society has been altered and improved.

If these have been the results of the inferior sciences being established upon solid bases, what benefits must accrue from the science of *Mind*, when the same is founded in truth? It will give its gigantic

power to vanquish all the enemies of the human race: it will go forth in the majesty of its strength, and banish from the territory of ethics all those erroneous opinions which exist in reference to the management and direction of the mind. Being light itself, its beams will necessarily radiate; being true, error must be unveiled; and being unveiled, in spite of the flimsy garments of sophistry and venerable antiquity, with which many of the talented have attempted to cover its deformed meanness, the brilliancy of the effulgence of truth will hold up to the gaze of an astonished world as false, and consequently injurious, opinions, hypotheses, and practices, which previously were credited, admired, yea revered.

Phrenology is such a science: it is a sun; human nature being the world it illuminates; which nature, wherever existing, and under whatever aspects seen, must feel the benign and quickening influence of its beams: by the reflection of which every subject having relation to man will be better understood, and more perfectly known, than when examined by the sharpened but unenlightened vision of long experience, or by the acute but misdirected glance of metaphysical speculation.

This belief of the benefits that must arise from the applications of Phrenology is founded on legitimate experience, and has led to the inditing the following thoughts on the highly interesting subject of MoRALITY.

The reader must not be astonished if he find, on their perusal, that he has been embracing a shadow instead of a substance, or that he has been impelled by a false friend, who would either turn his back upon him in the day of temptation, or lead him to the brink of a precipice, blind his eyes, and let him fall; and he who boasts of the morality of the present day must not be offended, if it be proved that its greater part rests upon principles, variable as the wind, and changeable, as the billows of the sea; and finally, let not the sceptic be surprised, if the mist with which he has surrounded himself be dissipated, and he

find that the only remaining rock, which stands firm amidst the tempests of life, is that presented in Christianity.

Man is placed in this world surrounded by other created bodies. Certain relations have been established by the Creator between them and him. Viewing the human being as a portion of matter, he is liable to be acted on by other matters simply from the circumstance of his frame being material. Thus a relation is established between man and the earth, that he gravitates towards it. Attending to this relation, he gains many benefits, avoids many miseries. pose that, neglecting this relation, he leans so much over a precipice, that the attraction of the earth below to him, as a piece of matter, becomes greater than that of the earth on which he stands, he necessarily falls, and is dashed to pieces. This and such relations regarding man, as matter, or having a body, are called physical, and the

laws regulating these are called physical laws.

But man may be viewed as matter, composed of different parts, having different offices or duties attached to the same; and which, having these duties connected, are called organs. The Creator has placed these organs in certain relations to other bodies; some being unfriendly, some friendly. Thus, arsenic is placed in an unfriendly relation to that part of the body called the stomach; and hence, arsenic being taken, vomiting, pain, and sometimes death ensue. Bread is beneficial to the same organ, simply because the relation established between this body and the stomach is friendly. These relations are named organic relations, and the laws for their regulation, organic laws.

But relations still higher exist. They are those established between man in regard to his fellow-man. These are called *moral* relations, and the laws for their regulation are named moral laws.

As a knowledge of, and an obedience to the physical and organic laws are attended with the greatest benefits to man, as a physical and an organic being, how much more beneficial must an acquaintance with the moral laws be to him as a moral being? His peace and happiness are therewith essentially connected; and therefore, the investigation and the understanding of the subject, called Monaraty, which embraces these relations, must be highly important.

All the moral laws have been summed up by the Author of the Christian system in one universal law: "Thou shalt love thy neighbour as thyself." This obeyed, man places himself in conformity with the moral relations established between him and his fellow-man. The term morality is used, in the following pages, as indicative of this obedience in its widest sense.

Every action must be in obedience to, or in violation of, these moral relations. An action, moreover, may arise from many sources. These sources are called Motives, which are nothing more than the effects of certain faculties of the mind being called into activity. Phrenology demonstrates the existence of these faculties; and those existing are arranged under two grand divisions,* the Affective and the Intellectual; the Affective being subdivided into the Animal Feelings and the Moral; the Intellectual into the Perceptive and the Reflective. All these faculties are placed in certain relations to external objects, and to one another; so that the presentation of these objects excite them into activity; and, being rendered active, man is influenced thereby to adopt a certain line of conduct. This conduct, viewed in reference to morality, must now be examined.

As an action may arise from different motives, it is evident that a distinction of morality into outward and inward is justifiable. By outward morality is meant that arising from the activity of the Animal Feelings, whereas inward is that originating in the activity of the Moral Feelings enlightened by the Intellect. To illustrate:

^{*} See Crook's "Compendium of Phrenology," already noticed; also the Preface to this work.

A dog passes a butcher's stand; the animal is hungry; sees some meat; his Acquisitiveness becomes active, and he seizes it. Such an action, viewed relatively, is immoral. The animal is caught, and receives a severe punishment. The punishment excites the dog's Cautiousness; and on passing the shop a second time, though equally hungry, he avoids touching what is not his own. Here the dog is outwardly moral; but having no sense of the impropriety of stealing, the animal cannot be said to be inwardly moral. But let a man who knows and feels the influence of the law of love to his neighbour, pass the butcher's stand; let this man be hungry, yet he does not steal, because his Conscientiousness and Benevolence, and Moral Feelings, tell him of the injustice of taking another's property. This is inward morality.

This distinction is held to be important, because, unfortunately, the morality of the present day is, in a great measure, merely outward; no way superior to the morality

of the dog. It is the product of the activity of the Animal Feelings, which, unhappily for mankind, have gained the sovereignty over the Moral Feelings and the Intellect; whereas these, in order to be able to excite inward morality, must be in the throne, and have the animal propensities attached to its pillars, as a faithful watch dog to be let loose only on the violators of law and decency.

Outward morality, then, is a phrase expressive of an external attention to the moral laws, induced by the activity of the Animal Feelings. Inward morality, on the other hand, that produced by the Moral Feelings enlightened by the Intellect.

These terms explained, illustrations of the sources of outward and inward morality may be brought forward; which having been presented, the next point will be to show the imperfection in the influence of the Animal Feelings as sources; then to exhibit the necessity of the Moral Feelings being enlightened by the intellect, and also aided by the other feelings; next, that the sources of morality are powerful just in proportion as the faculties called into activity are of the higher order and numerous; and, finally, to conclude by demonstrating that Christianity viewed as a natural system, without any reference to its divine origin, presents objects to the mind exciting the greatest number and the highest order of faculties; the corollary from this being that Christianity, as a whole, is the best system of morality.

Philoprogenitiveness is an Animal Feeling. The influence of this faculty has occasioned many individuals to be outwardly moral; this influence being much increased when combined with another animal feeling, Cautiousness. A father is tempted to commit some crime against the laws of his country; he looks at his children, the objects of his love, and thinks of the consequence of the proposed action in reference to them. This restrains him: the

barrier is not the love of what is good, the hatred of what is evil, but simply the activity of an animal feeling.

Again, how many are prevented from retaliating an act imagined to be insulting or unkind, from a regard to the interests of their children, which happen to be intimately connected with the person who excites the unpleasant imagination. Wounded Self-Esteem instantly cries out for vengeance: but its voice is utified by the activity of Philoprogenitiveness.

Another animal feeling is Adhesiveness. This has been, frequently indeed, the source of outward morality. The tie of friendship has bound many souls so close, that nothing could lead the one to betray the other; no temptation could succeed in inducing unjust conduct; but this, be it observed, has been the result of the activity of Adhesiveness occasioning this language, "He is my friend." The resistance and the restraint have not originated in the broad principle of love to man, but in the narrow feeling of exclusive attachment.

Reference has been already made to CAUTIOUSNESS, a faculty of the same class as the foregoing. A knowledge of man in society has convinced most individuals, that outward morality springs abundantly from the activity of this faculty. How many refrain from acts of injustice, because Cautiousness brings to remembrance the sword of Justice ready to pierce offenders. Indeed, to many, the prison, the fetter, the halter, and the gallows are the principal excitements to an outward obedience to the moral relationships. The preserving power is not a dread of offending against these relationships, because they are the dictations of the Moral Feelings, but the consequences awaiting the violation. To illustrate: Many a youth has been kept virtuous from a fear of disease; and many a glutton has been rendered temperate from the dread of apoplexy. Passion, the improper activity of Destructiveness, has been prevented from inflicting a deadly blow from the mere influence of Cautiousness. Indeed, this faculty is highly influential in

leading to an outward obedience to the moral laws.

Love of Approbation, another animal feeling, may claim an influence equal to that of Cautiousness. Too much of the morality of the present day, as to its sources, may be resolved into the questions, What will my friends say? What will the world say? The question is not, What will the Moral feelings and the Intellect say? No: the good opinion of mankind is the potent motive: the foundation of moral conduct. Thousands can claim no higher source. Many would trick their neighbour, were it not for their deeds being made known. Many a bigot is restrained from committing those differing in opinion from himself to the stake, by respect for the opinion of mankind. Many a magistrate is preserved from abuses of the power committed to his trust, from a fear of the public press. Indeed, to go higher, the patriotism of many of our legislators may be referred to this feeling; and to go higher still, the liberality of many of our countrymen originates in

Love of Approbation. What, too, is the greater part of that false sympathy called politeness, but the dictation of this faculty? Indeed, the shapes under which its activity may be traced, are truly Protean; and many assume the pleasing vizor of morality.

Self Esteem may be considered as a source of outward morality. Many persons called philosophers, avoid the grosser violations of moral duty, because it is beneath them to imitate the vulgar herd. John Bullism is little more than a series of exhibitions of this faculty; and many apparently good deeds have sprung from appeals to Englishmen as such. At our public meetings, how many have gained a hearing and escaped ill treatment, by appealing to this faculty. It is related of Voltaire, that when in this country, he was mobbed, and would, it is likely, have been most injuriously treated; when, having attained the elevation of a post, and having harangued those surrounding him on the noble conduct of Englishmen towards

strangers, they, instead of violating the moral law by injuring him, carried him away on their shoulders. It is well known, moreover, that in the Theban war, Agesilaus having placed some men in a very important post, and having heard that these intended to betray the trust committed to their charge, hastened to them, and gave the following laconic address: "Comrades, it is not there I sent you." This appeal to their Self-Esteem, by calling them "comrades," and the affected ignorance of their determination, overcame these hardy spirits, and Agesilaus was enabled to distribute them among the faithful troops.

The highest court in our nation is the House of Lords. Many of the individual members of this house are, as regards their private character, the most immoral and profligate of men; yet the judicial court formed by them is one most just; its decisions being, in most cases, consonant to the principles of equity. The questions arise, How does this transformation take place? How can a bad private character

be converted into a just judicial? Self-Esteem, existing as a faculty of the mind, gives the reply. These individuals are bound by their honour, an activity of Self-Esteem, to give just judgment. This feeling of honour, from the education such individuals unfortunately in general receive, is perhaps the strongest they have; and some wisdom may be supposed to be shown in having appealed to this feeling, the faculty of which has been so cultivated by their circumstances and education. But the outward morality thus produced is the activity, be it ever remembered, of an animal feeling.

Acquisitiveness, belonging to the same class as those pertain to which have been considered, is a source of outward moral conduct. The avaricious man abstains from intemperance, from gross sensual indulgence, and many vices, because they are expensive; that is, their gratification is attended with the mortification of a faculty, which, in him, is in peculiar activity. It is not from a love of temperance, from a

hatred of lust, that he abstains, but simply from the above noticed cause. Thus is seen how Acquisitiveness may be a source of outward morality.

Morality, as connected with the higher faculties, is now to be considered. An individual with a large organ of Benevolence is impelled to acts of kindness. He delights in doing what is good, at least what he considers to be so. He thus is placed in conformity to the moral law. But even benevolence may be the source of what is called outward morality. A man may perform an act of charity, not because convinced of it as a duty, but simply from the pain which the non-performance would occasion. Indeed, benevolence in its unguided activity is often the source of a violation of the moral relations. Thus an individual impelled by the sudden excitement of this faculty, by some apparently distressed object, may be supporting one in laziness and in vicious habits, and thus do an injury to society. Misapplied charity has been an active cause of the moral evils which prevail at the present day.

A higher morality is that founded on Benevolence combined with Conscientiousness. The one says, "Be just;" the other, "Be generous:" and thus a love of justice being united with a love of goodness, a powerful motive to moral actions exists in the mind, and impels the possessor "to do justly, and to love mercy."

Morality has a source originating in the activity of Benevolence, Veneration, and Love of Approbation. As an illustration let us suppose the case of a child much attached to a good and just parent, whose will he much respects, and in whose approbation he feels the greatest delight. In such a state of matters, all the faculties noticed are called into activity, and the child is stirred up thereby to walk in the path of moral duty.

A still higher source of morality exists, and this is connected with Conscientious-NESS and CAUTIOUSNESS being added to the just noticed faculties. Thus the child having offended this kind parent, and having seen the injustice of his conduct, the cause of the offence, his Cautiousness is called into activity, to avoid in future whatever may give pain to one who has nourished, clothed, and protected him all the days of his life: and the offence being pardoned, Benevolence is awakened, and adds its impulse to excite Cautiousness to a still greater watchfulness.

All the faculties have not, however, been noticed. Cannot more be concerned as causes of moral actions, than those mentioned? Or cannot they be excited into greater activity by some more powerful exciting cause? They can. Thus, suppose this kind parent is a lawgiver, and as such, makes a law, disobedience to which must be attended with punishment; and that, too, nothing short of the total exclusion of the child from the parent's presence; suppose that the child, having violated this law, and consequently exposed himself to the infliction of the penalty, find to his painful,

yet at the same time, joyful surprise, that the parent places himself, or one equal to himself, as a substitute; and that he himself is restored to the favour, by his violation of the law, lost. Suppose, in addition, that a promise of great reward is held out to his Hops, if persevering in obedience; and of dreadful punishment, appealing to Cautiousness, if disobedient, how many faculties are called into play; and as the law-giver is supposed to love the good and hate the evil, all these become, thus excited, sources of moral action.

But suppose, in addition, that the child's Individuality and Ideality are so enlightened as to believe that the lawgiver continually beholds him, then every faculty is awakened into still higher activity; and the child proceeds in the career of moral conduct with a strength truly gigantic.

Thus the different faculties of the mind have been considered as sources of morality.

The next point to be shown is that the influence of the Animal Feelings, in inducing outward morality is very imperfect, and totally inefficient in circumstances, strongly exciting to immoral conduct. Indeed, in very numerous cases, they lead directly to the violation of the moral relations.

Thus to take Philoprogenitiveness, which was noticed as a source of outward morality, leading individuals, for the sake of their children, to refrain from the violations of the moral law, in open acts of violence, and in retaliations of injuries. But this very faculty may, by inducing too strong an attachment to our own family, cause "charity to begin and end at home." It may lead, in order to supply our families' necessities, to means not justifiable in their nature; and may induce, when other enticements have failed, to a neglect of the trust committed to an individual. Most perhaps, are acquainted with Kotzebue's Pizarro. They will remember that the conspicuous characters in the same are

Alonzo, Rolla, Pizarro, Cora, and her child. It is well known that the brave Alonzo is taken prisoner by the Spaniards, and is to die on the following morn. Rolla bears the sad tidings to Cora, who intimates, in the agony of her heart, that Rolla had betrayed her Alonzo, to gain, by his death, her hand. Rolla, who had renounced his claim to Cora, on account of her attachment to Alonzo, was therewith so agonized as to determine to go to the camp of the enemy; find out the dungeon wherein Alonzo was confined; bribe the guard; and bid Alonzo escape: himself remaining. The brave, the devoted friend arrives; enters the cavern: when he is accosted by the sentinel.

Sen. Who's there? answer quickly! who's there?

Rol. A friar come to visit your prisoner. Inform me, friend, is not Alonzo, the Spanish prisoner, confined in this dungeon?

Sen. He is.

Rol. I must speak with him.

Sen. You must not.

Rol. He is my friend.

Sen. Not if he were thy brother.

Rol. What is to be his fate?

Sen. He dies at sunrise.

Rol. Ha! Then I am come in time.

Sen. Just—to witness his death. Rol. Soldier, I must speak to him.

Sen. Back, back.—It is impossible.

Rol. I do entreat thee, but for one moment. Sen. Thou entreat'st in vain-my orders are

most strict.

Rol. Even now, I saw a messenger go hence.

Sen. He brought a pass which we are all

accustomed to obev.

Rol. Look on this wedge of massive goldlook on these precious gems. In thy own land they will be wealth for thee and thine-beyond thy hope or wish. Take them—they are thine. Let me but pass one minute with Alonzo.

Sen. Away!—wouldst thou corrupt me? Me

an old Castilian! I know my duty better. Rol. Soldier!—hast thou a wife?

Sen. I have.

Rol. Hast thou children?

Sen. Four-honest, lovely boys.

Rol. Where didst thou leave them?

Sen. In my native village; even in the cot where myself was born.

Rol. Dost thou love thy children and thy wife? Sen. Do I love them! God knows my heart

-I do.

Rol. Soldier! imagine thou wert doomed to die a cruel death in this strange land. What would be thy last request?

Sen. That some of my comrades should carry

my dying blessing to my wife and children.

Rol. Oh! but if that comrade was at thy prison gate, and should there be told—thy fellow soldier dies at sunrise, yet thou shalt not for a moment see him, nor shalt thou bear his dying blessing to his

poor children or his wretched wife, what wouldst thou think of him who thus could drive thy comrade from the door?

Sen. How!

Rol. Alonzo has a wife and child. I am come but to receive for her, and for her babe, the last blessing of my friend.

Sen. Go in.

Here we find that the appeal to the sentinel's Acquisitiveness, by the presentation of the massive gold and precious gems, failed; but the appeal to his Amativeness, and Philoprogenitiveness, succeeded in leading him to neglect his duty. Rolla is admitted; and Alonzo, having assumed his dress, escapes. Thus it may be seen, how this feeling of attachment to offspring may lead an individual to depart from the career of duty.

Adhesiveness was mentioned as a source of outward morality. This is, indeed an imperfect source. Adhesiveness is, in its nature, exclusive; it regards the interests of one object as superior to those of any other; and the effect is, consequently, that the interests of the many are sacrificed to the interests of a few. It leads individuals to

place their friends in situations, which these friends are not fitted to fill; and hence, moral injury is done to mankind. Thus, how many a bishop has been indebted for his bishopric, and how many a clergyman for his benefice, and how many a pensioner for his pension, for having been the companion in vice of the donor? And what moral injury is thus inflicted on the community!

The Romans carried the friendship of Adhesiveness to a very improper extent. They often set aside justice for the sake of a friend: and, unhappily, the Romans were not singular in this; the practice prevails too much at the present day.

The next faculty mentioned was Cautiousness. Its imperfection as a source of morality is seen in the fact, that, where it does not act, the man's morality must necessarily cease. Thus take two men, one having small Cautiousness, the other large. Both are tempted to commit a forgery; the one sees little or no danger, the other perceives a lion in every way; the one

does the rash act, the other abstains. Thus the weak barrier presented by Cautiousness against immoral acts, is clearly exhibited. If, moreover, the sword of justice is not able to hurt the man with large Cautiousness, then no obligation remains. Hence, many, who would be filled with terror at the thought of committing any crime which would bring them to the gallows, are continually engaged in violating the moral laws, in ways where the strong arm of the law cannot lay hold of them. They rob their neighbour by legal flaws; by injuring his character; by depreciating his merits; by plagiarism, and numerous other methods.

Love of Approbation, as a source of outward morality, is equally imperfect, especially when directed to the good opinion of man; in itself a variable standard. A man, in the midst of other men moral in their conduct, is, no doubt, excited, in such a case to act in obedience to the moral relations. But put the same individual among immoral men, and the very same feeling that made him, in the former state of circumstances, moral, now renders him immoral. Hence many young people, whose education in regard to morality has consisted solely in the excitement of this faculty, are, when sent out into life, without any power of resistance against the solicitations of their evil companions: and they speedily fall into the grossest vices. Hence the demoralizing influence of the congregating system in Bridewells.

To exhibit, still more strikingly, the imperfection of Love of Approbation as a source of morality, lying is frequently the consequence of the activity of this faculty. Thus, a child who has been taught to judge of the justness and the propriety of actions by what people think of him, will, having done any misdeed, speak an untruth, in order not to lose the approbation of the person who charges him with the circumstance. Again, what are the phrases, "not at home;" "engaged;" not well;" and others belonging more particularly to a certain unfortunate class of society, but utterances of the excitements of Love of

Approbation combined with Secretiveness, urging them not openly to state that the visitors' company is not requested.

Self Esteem is a source of morality equally imperfect: and this, its imperfection, is seen in the circumstance that the individuals who act from this feeling, justly in some cases, in other cases are continually acting unjustly. Those very men who will pay their debts of honour, will not pay those of their tradesmen. This feeling may do very well in times of prosperity, but, in the day of adversity it is very weak. It is like the goddess Virtue of the ancients, who was a pretty toy to play with, in prosperity, but in adversity was no support; for Brutus, one of her most strenuous admirers. having cried out, on the plains of Pharsalia. that she had forsaken him, fell on his sword. and died.

Self Esteem acting with Inhabitiveness, considered Exclusive as giving rise to the Patriotism noticed as a source of morality, may become the source of Immorality. Thus the patriotism of the Romans led them

to carry devastation over the world: the proud patriotism of Spain led the Spaniards to crimes that still cry from the shores washed by the Atlantic wave. And a northern shore, washed by the same great water, tells, in the warmly expressed feelings of dislike against England, the evils which an exclusive, proud, self-gratulating John Bullism inflicted there.

Acquisitiveness was then mentioned. It, like the rest of the Animal Feelings, is a source of morality very uncertain. One exercise of this faculty mentioned was that of rendering the avaricious temperate, sober, and chaste; but as the acquisition of wealth is his only impelling motive to temperance, sobriety, and chastity, if he could get rich by being intemperate, not sober, and unchaste, his outward morality would instantly cease, and a violation of the moral law would follow. Indeed his



^{*} Thanks be to God that one is now walking on in the career of its glorious freedom; may it be in the freedom from vice; the other is still struggling; Rome has passed away; so shall all that act similarly.

acquisitiveness makes him to violate the law of love to his neighbour, inasmuch as the desire to get rich is the cause why he grinds the face of the poor, and neglects the higher duties of justice, mercy, and judgment.

Thus inefficient are the Animal Feelings as sources of moral actions.

The next point is to exhibit the necessity of the Moral Feelings being enlightened by the Intellect, and aided by the other Feelings.

First, with regard to Benevolence. This faculty very much needs direction. It may lead a man to violate the moral law, in neglecting to be "just before he is generous." Benevolence, too, often prevents an individual from doing his duty in cases where punishment is to be inflicted. Hence many parents neglect to punish their children, simply on account of the pain they themselves experience in inflicting any

chastisement. The kind-hearted, "social creatures" of society, as they are called, who are kind to the wretched, and liberal to their friends, and yet destructive to their creditors, very frequently have Benevolence large.

But the influence of Benevolence and Conscientiousness acting together, as motives to moral actions, may be considered. This influence is considerable; a feeling of justice, and a feeling of goodness, being instinctive in the individual. Indeed, the power thence derived is, in circumstances of prosperity, sufficient to enable the possessor to act very continually in obedience to the moral laws. He will have combined in his character, especially if in possession of the faculty of Firmness, the good Samaritan and the just Minos. But as both Benevolence and Conscientiousness are blind, that is, judge only on what is presented to them by the other Faculties, particularly the Intellectual, and do not of themselves perceive the good and the just, it is evident that the Intellectual Faculties

must be called into activity, in order to be enabled to present the cases before the judicial court of these two Faculties, in such a complete condition, that all the bearings being made clear, the judgment given may be, not according to superficial appearance, but according to righteousness; and, at the same time, it will be necessary that the other feelings should be watched over, lest they should pervert the view of the Intellectual Faculties. Hence, many men, with the Intellectual Faculties weakly developed, support institutions which, in principle and in practice, are injurious to the moral being of the community. They think they are doing good and are acting justly, but are mistaken; simply from not being able to take in all the facts and the circumstances necessary to be remembered before a correct decision can be given upon what is good and what is just.

In days of adversity, the activity of these two faculties is not sufficient to overcome the force of the trials enticing the individual to violate the moral laws; continual

temptation is, to the good and the conscientious man, like the constant dropping of water: it makes a hole in a stone. It is true, he may never rob on the highway, or steal in the house: but he will submit to those low, cunning, and disgraceful tricks of trade, which are (sad indication of the sources of morality being mostly animal) looked upon by too many in trade as lawful. He will be prevailed upon, by the pinching influence of adversity, to take improper advantage of his neighbour; to violate, in other words, the moral law. From this cause, many individuals are to be met with in society, who express their grief that they are obliged to have recourse to those expedients to which they do have recourse; they see the impropriety of these expedients, but so powerful is the pressure of ladverse circumstances, that they cannot resist, and are impelled forward into practices which their moral feelings abhor.

VENERATION, another moral feeling, is not a sufficient power for the resistance of temptation. Many are the individuals who

have large organs of Veneration, and who are outwardly very devotional, and yet are most unjust and abominable. Such were the Pharisees, in the days of Jesus Christ; and such are too many in the present day. Veneration too, not guided, gives rise to a zeal without knowledge, which has led many to the most horrible violations of the moral laws, in bringing their fellow-creatures to the stake, on account of a difference in creed, and thinking thereby they did God service.*

This point then, of the necessity that the Moral Feelings should be enlightened by the Intellect, and aided by the other Faculties, seems to be sufficiently established. The remaining matters to be proved, therefore are, that the motives to morality are powerful in proportion as they appeal to a number and a higher order of Faculties;

^{*} The influence of Veneration is considered more fully in the last Essay.

and that, as Christianity presents facts exciting to activity more faculties, and those of a higher order, than can be presented by any other system, Christianity is the best source of morality.

Christianity will be viewed in the following remarks merely as a system of MEANS proposed by its author, for the inducing moral conduct. None of our reasoning will be founded upon our own decided opinion that this system is of Divine origin; but the facts, simply stated, shall be brought forward, and their necessary influence, when believed and understood on the human mind (as discovered to · be constituted) will be considered. not the sceptic therefore say we dogmatize: we refuse the name of dogmatist; we claim that of a philosopher examining a system, supposing that system was presented to us for the first time: a system claiming to excite to moral conduct by the FACTS which it presents.

What then are these facts? Christianity states that the Creator of the world is of

such a character that He cannot look upon sin (comprising all violations of the moral law) but with the greatest abhorrence and detestation. Christianity states that this Deity has established certain moral laws, embodied in the ten commandments; which are further compressed into the two laws published by Jesus Christ: "Thou shalt love the Lord thy God with all thy heart, and soul, and mind, and thy neighbour as thyself."

The Intellectual faculties, acting along with Benevolence and Conscientiousness, discover these laws to be just and good. But Christianity states, in addition, that attention to these laws has LIFE attached to it; that non-attention has DEATH: a life consisting in the enjoyment for ever of this blessed Being's favour; a death, an everlasting exclusion from His presence. It moreover adds, that all men have violated these laws, and consequently are exposed to the punishment attached to the violation. But then it still goes on to say, that this great, good, and just Being, looked

down in mercy on the sons of men, and sent His EQUAL, whom he calls His "beloved Son," to receive the punishment due to the children of men,—the violaters of His laws. These facts being believed, the exceeding enormity of the offence is seen by the greatness of the Being who suffers -the Lawgiver's equal: Conscientiousness, enlightened by the Intellect, is thus awakened, and through it Cautiousness. But Christianity adds still more; namely, that EVERY ONE is invited to lay claim to a share in the benefits accruing from the death of the Lawgiver's equal; namely, Freedom from punishment, the possession of glory, and also freedom from sin. Here Benevolence is called into activity, and sees somewhat of the immeusity of the benevolent Love of this great Being: Hope is awakened; and Cautiousness, ceasing its forebodings, acts only in unison with the higher feelings, producing an anxiety never to offend so kind a Being But Christianity further adds, that this kind, holy, and just Deity is EVER PRESENT; that he sees the inmost thoughts;

and therefore, Love of Approbation, Ideality, and Individuality, become active: and as this Being loves what is good and hates what is evil, the desire to gain His approbation, by doing what is pleasing and avoiding what is displeasing to Him, becomes established in the mind. But Christianity presents other facts. It presents the terrors of Hell on the one hand, appealing to Cautiousness for fear of the same, and also to Benevolence, showing the greatness of the deliverance; and on the other hand, the inexpressible joys of HEA-VEN, appealing to Hope and to Acquisitiveness. And, lest the mind should be oppressed with a sense of its own inability to resist the temptations to a neglect of the holy, just, and good laws established by this Being, Christianity informs man that the Lawgiver's equal has risen to glory and to power to impart strength sufficient for every time of need. Here Hope rests in delightful complacency. But Christianity does not stop here. It requires all those who believe these facts to meet together,

on the first day of the week, to stir up one another by exhortation to the performance of those moral duties which this Being, now so much loved, enjoins: and bids them, in remembrance of the grand facts of the death and the resurrection of the Lawgiver's equal, to take bread and wine on the day they meet. To appeal to their Philoprogenitiveness, the Author of the Christian scheme calls all those who believe these facts His children: to excite their Adhesiveness. He asserts that He"sticketh closer than a brother," and calls them his "friends;" adding, at the same time, an appeal to Imitation: " If ye are my friends, ye will do whatsoever I command you."

Thus the Christian system presents facts exciting almost every faculty of the human mind into activity; and their activity, be it remembered, is directed towards a being who loves the good and hates the evil; and therefore all the moral power derived from the excitement of this great number of faculties, (those of the higher order, moreover, being the ones most powerfully ap-

pealed to) must be directed in leading the person thereby influenced, to be obedient to the moral laws.

But Christianity does more in inducing inward morality. The DUTIES it requires subdue the Animal Feelings and cultivate the Moral. Thus Christianity considers all men as of one family; as brethren; and banishes the exclusive feeling of local patriotism which has, as has been noticed, been the source of the most immoral national It elevates the poor, and thus humbles Self-Esteem. It requires its followers to visit the fatherless and the widow: thus cultivating their benevolence and higher feelings. It requires its followers not to mingle in the follies of the world; not from any opinion that they are better than the world in regard to merit, but simply to preserve their minds from being acted on by those objects, which are such as by their very nature appeal to the Animal Feelings, and thus increase their power; indeed, they are the golden apples gathered from the garden of the Intellect, tilled by the

Animal Feelings, thrown to entice the man to cease to walk in the career of the higher duties, dictated by the Moral Feelings.

How highly important, therefore, must Christianity be. Indeed, no facts but those of this system, can claim a power sufficient to forbid the libidinous look; to overcome the idolatry of maternal love; to unfocize the converging influence of exclusive attachment; to subdue the restless panting for an earth-born fame; to tame the overweening love of self, and to enable man to persevere in the continual performance of deeds of justice and goodness to his brethren in the truth; to his friends, to his enemies; yea, and as opportunity is given, to all mankind.

Some have affected to despise the FACTS of Christianity, and to admire its PRECEPTS. But such persons are ignorant of the true condition of human nature in relation to the extent of the dictations of Benevolence, Veneration, and Conscientiousness. From viewing these parts of the Christian system separately, many have charged the

author of this system with being too strict, and requiring more than human nature can give. And so it is if Christianity have its precepts separated from its doctrines. Indeed, it would be absurd to present to man the precepts of Christianity without the facts. His attempt to obey would be an Ixionic labour; but in the belief and understanding of the facts of Christianity, a Herculean strength is obtained, enabling him to crush the hydra-headed temptations he has to combat in the performance of those duties that Christianity enjoins.

The Essay may be brought to a conclusion by showing how strictly these views tally with those of Scripture on the subject of morality.

FAITH and Works are two very principal matters in the volume of Revelation. Without faith no acceptable works can take place; and works which, be it remarked, may be produced without faith,

are called "dead works." These dead works correspond to the "Outward Morality" explained in the foregoing pages, which had for its source the Animal Feelings. and the unenlightened Moral Feelings; and did not originate from the Moral Feelings enlightened by the Intellect; these latter, however, are those appealed to by the facts of Christianity; and works arising from the influence of these facts being understood and believed, are "living:" they form what has been named "Inward Morality." Hence will be seen what is meant by the apostolic injunction, "Live by faith." This does not mean, as some have explained the passage, the continual asking of ourselves. Do we believe? but intimates the duty of continual perseverance in the performance of the preceptive part of Christianity, by keeping continually present to the mind its facts and doctrines. It is through these facts that the Spirit of God first acts on the mind so as to give it life; and these which were life's source. must be its nourishment also.

They communicate the power, and without this power man is necessarily weak.

The views brought forward in the foregoing pages being understood, a question, Did you ever once believe? would never, in the sense it is used, again be asked. Man must, in order to persevere in obedience to the moral relations, continually believe; in other words, the facts of Christianity must be written on his heart; they must be to him a cloud by day and a light by night. They must, it may be once more repeated, be continually before his mind; since, if he keep them not, then the motives to action are gone, and he has no barrier left. Hence, Jesus Christ tells his followers, "Without me ye can do nothing; that is, without keeping the glorious truths, which I, as the Word, have made known, you can never have strength sufficient to persevere in the performance of those duties that I enjoin.

These views by some may be thought too simple; by others too abstruse; but such as they are, they are sent forth to find in the minds of thinking beings an apppropriate resting place. And, in addition, to stir up in the mind of the Christian the importance of bearing in remembrance the glorious facts, objects of his faith; since it is by these alone that he will be enabled to ride safely through the billows of the temptations of life, and at last anchor in the haven of eternal peace.

ESSAY II.

ON THE BEST MEANS OF OBTAINING HAPPINESS CONSIDERED PHRE-NOLOGICALLY.

Man, in his words and actions, is ever prone to extremes. The Horatian adage, "In medio tutissimis ibis," is very slightly impressed on his memory; or, if remembered, it is practically applied only to add to the sneer induced by some ludicrous violation of the rule, something of classic elegance. So it is with the opinions of men regarding Happiness, as connected with our present existence. Some denominate the world as a stage for misery to act her disastrous part; as a desert; a vale of tears; a waste; a howling wilderness. Others

style it as the centre of every enjoyment; the field of pleasure; and the source of every bliss. Both go to the extreme: the truth lies between. The picture of the one class is too much loaded with clouds: that of the other too much illumined by light. The bitters of misery and the sweets of happiness are mingled in the same cup: The proportions, it is true, are not easily stated. Some one has attempted to decide, asserting that "happiness is the rule, misery the exception." This seems, in the majority of instances, hardly to be the case. One says, "man is born to trouble, as the sparks fly upward;" and this, perhaps, is a nearer approach to the truth. However, the determination must be allowed to be difcult: the wisest, and those best acquainted with the varied conditions of human nature, allow that the proportion is pretty nearly equal. Still we cannot conceive that the Creator would inflict upon His creatures any share of misery more than is consistent with his plans of Benevolence. Holding this as true, on observing the great

sum of misery existing in the world, the question naturally is suggested, "How far is this misery independent of or dependent on ourselves?" The answer to this question is important, since this will unfold, first, the proportion of misery originating in us, as causes, and second, the best means of increasing our happiness.

In unfolding the subject of this Essay, namely, the best means of obtaining happiness, the sources of our happiness and of our misery will be shown: in showing which it will be demonstrated, that much happiness and that much misery exist; and then, those sources will be made known, by which the greatest portion of happiness and the least of misery may be obtained.

It seems to be a principle established throughout nature, that PLEASURE IS CONNECTED WITH THE EXERCISE OF POWER. Animals are endowed with organic parts, called muscles, vulgarly called *flesh*, for the performance of motions; and the delight they experience in the exercise of these parts

has been noticed by every observer. This delight is the principle of activity; the source of enjoyment; the conservator of life. See the horse run frisking, pricking his ears, and neighing round a field; see the dog let loose from the kennel, and behold his joy; see the infant child, delighting to exercise its unswathed limbs, and crying when they are again bound. There is happiness, then it is evident, in the exercise of muscular power; and when it is remembered that this exercise is essential to the preservation and well being of the animal, the Divine goodness and wisdom are seen in the consociation of pleasure therewith.

This established principle in regard to the faculties of the mind, as discovered by Phrenology, is that which more particularly claims our investigation.

The Creator has implanted in the mind a love of sex, or Amativeness; and to ensure its activity, has attached happiness thereto; as he can testify on whose path some object of beauty and of innocence has beamed.

Campbell says, speaking of Eden, in reference to its inhabitants:

"———the garden was a wild;
And man a hermit lived, till woman smiled."

A love of offspring (Philoprogenitiveness) has been given to man. The parent knows the joy which is afforded by the contemplation and the embrace of his children. The following passages are taken from Pizarro, already quoted: it is a part of a conversation between Cora and Alonzo, over their infant.

Cora. I am sure he will speak soon: then will be the last of the three holydays allowed by nature's sanction to the fond anxious mother's heart.

Al. What are those three?

Cora. The extacy of his birth I pass; that in part is selfish: but when first the white blossoms of his teeth appear, breaking the crimson buds that did incase them; that is a day of joy: next, when from his father's arms he runs without support; and clings, laughing and delighted, to his mother's knees; that is the mother's heart's next holiday: and sweeter still the third, whene'er his little stammering tongue shall utter the grateful sound of Father, Mother!—O that is the dearest joy of all!

Again; man is born for society, He is

a gregarious animal. Alone, he is, comparatively speaking, helpless; the Creator has therefore given a faculty of attachment (Adhesiveness), which, having happiness connected with its exercise, leads its possessor to form the band of friendship with his fellow-men. Does any one doubt the delights connected with the activity of this faculty? Bid him visit Damon and Pythias: tell him of David and Jonathan.

It is necessary for the improvement of the condition of human beings, that they should be stationary in reference to place. The Creator has, on this account, kindly bestowed a faculty which attaches its possessor to a particular place (Inhabitiveness): and who has heard the delightful song of "home, sweet home," but has felt the peculiar joy arising from the activity of this faculty.

Another faculty is Love of Approbation; and let him to whom it has been the favoured lot to receive the due "meed of praise," testify to the thrill of extacy that vibrated through his soul at its reception.

Self Esteem has been bestowed also; and he who has felt the pleasure arising from a conviction of the sufficiency of his powers to the completion of any undertaking, will bear witness to the happiness therewith connected.

Ask him with large Acquisitiveness whether he does not experience high delight in the act of accumulating, and the reply will be in the affirmative.

It thus appears that happiness is connected with the exercise of our Animal feelings; and if this happens in relation to them, much more in reference to the higher feelings,—the Moral.

Can any one but he who has felt the delight of doing good, conceive of the bliss of Howard, the mere mention of whose name lights a smile on every countenance; pours the stilling oil of comfort over the perturbed bosom, and makes the tear of grief to glimmer with the radiance of hope? Great, indeed, are the joys attached to the activity of the faculty of Benevolence.

But, perhaps, a happiness nearly equal

originates in the exercise of Conscientiousness. How delightful is that complacent feeling, the production of the conviction that we have acted in obedience to the dictates of conscience. What supported Brutus, when he condemned his sons? What supports him who, in duty, is obliged to offend his dearest relative and friend? The happiness of feeling that Conscientiousness produces, on the contemplation of his act of justice.

What delight, moreover, there is in the exercise of Veneration. Who can express the mass of feeling embodied in the countenance of the worshipper, when turned to Heaven, with a chastened smile of thankfulness and of submission? Who knows the happiness of him who, in circumstances the most distressing, said, "The Lord gave, the Lord hath taken away; blessed be the name of the Lord."

But the Intellectual faculties have happiness connected with their exercise. Ask the mathematician whether, when solving some problem, he is not happy. Ask the painter, when depicting some lovely object in nature—ask the Syracusan sage the amount of his happiness, when, having found the means of detecting the purity of the crown of his monarch, ran out of the bath, naked, through the streets of Syracuse, crying, "I have found it, I have found it." Ask Pythagoras what his joy was, when, having discovered the celebrated proposition respecting the square of the hypothenuse, he offered to the gods a hecatomb of oxen.

Happiness is then the result of the exercise of those faculties which the Creator has bestowed.

But, strange to say, these very faculties, the sources of our happiness, are likewise the sources of our misery.

Thus, who has seen the object of his early love, her who has been his comforter, the sharer of his cares and joys, the interpreter of his feelings, stretched as a corpse before him, and has not felt the agony produced by the laceration of those very faculties, which, when the object was possessed,

were, from their activity, the sources of joy. His Amativeness, Adhesiveness, and even his Moral Feelings, are deprived of their object; there is a vacuum, which renders the man unable to bear up against the pressure of calamity. Thus, the tear and the smile are sisters: both born of the same parents.

Again; what is the misery experienced by her who has allowed her heart to pour its flood of feeling upon the child of her own body, who has seen the little babe in token of a knowledge that she is mother, smile on her approach, and finds that babe no longer in existence? Rachel, weening for her children, refusing to be comforted, is she. But whence arises this agony? from Philoprogenitiveness: the source, ere this, of her happiness. The Hindoo women have the organ of this faculty large; and the following is the lamentation of one who lost her infant: "Ah! my Hureedas! Where is he gone? My golden image Hureedas! who has taken him? I nourished and reared him! Where is he gone? Take

me with thee. He played round me like a golden top. Like his face, I never saw one." Each of these ejaculations is followed by "Ah! my child."*

In the same manner, a departed friend, to whom our heart has been linked, excites a most poignant grief. The object on which Adhesiveness delighted to outgo, is gone: the faculty has not its accustomed outlet for activity, and hence our pain. Solitary confinement is indebted for a portion of its severity to this faculty, having, in such circumstances, no object on which it can outgo.

And as to the misery arising from Love of Approbation not gaining its object, the painter, whose picture no one regards, the poet, whose poetry no one admires, the philosopher, the dicta of whose wisdom no one reveres, can bear witness.

Illustrations might be given in reference to the other Animal Feelings; but there is

^{*} Percy Anecdotes.

no need; as the reader's own mind will suggest the same.

The Moral Feelings also become the sources of misery. Thus, the benevolent mind is continually pained by seeing objects beyond the reach of its Benevolence: by beholding men neglecting their own interests, and injuring their own well-being. Again, Conscientiousness is the source of many a pang; since, continually, justice is seen to be disregarded; injustice to be applauded; and deeds of violence, because attended with success, hushed up in silence.

The Intellectual faculties, too, have their troubles; not simply in themselves, but as connected with the Feelings. He who finds that his Intellect is not sufficiently powerful to cope with many of those subjects that master-spirits have compassed, feels his Self-Esteem wounded, and in the pain* cries out most impiously, "Why hast thou made me thus?"

^{*} The metaphysical doctrine, THAT MAN CAN BE-

That the same faculties are the sources of happiness and misery, having been made clear, the cause of this apparent inconsistency may now be unfolded; in effecting which, the best means of obtaining happiness will be pointed out.

A little reflection on the nature of the different faculties, will render apparent the circumstances that the objects on which the Animal Feelings, outgo, are in their nature TEMPORAL; that is, not lasting; and, being such, the necessary consequence is, that the faculties, going forth on such objects, must, when these objects are taken away, suffer a laceration (Appendix). But the Moral Feelings have, in their highest exercises, objects which are not temporal, but eternal; and therefore, as the pain arising from the faculties is dependent upon the objects on which these faculties outwent being taken away, it is evident, that

COME WHATEVER HE PLEASES, is the child which this pain has begotten upon the Intellect. Many people oppose Phrenology because they have a little forehead.

when the moral sentiments are those principally called into activity, no such pain will ensue. The proper understanding of this view is the secret of happiness; and it will be advantageous on this ground to make the matter as plain as possible.

It is a principle held dear by Phrenologists, that the Moral Feelings are the higher; and, as such, should rule over the Animal. They are higher in situation, occupying the superior parts of the head; and they are higher in objects, having reference, not to self, but to the human race generally. All the Animal Feelings are exclusive: they localize. Amativeness claims its object to itself; Philoprogenitiveness looks to one part of human beings; Adhesiveness attaches to particular individuals; Acquisitiveness seeks individual possession; Love of Approbation longs for individual praise; but Benevolence is the general, the wideextended feeling of good-will to all the human family; Conscientiousness is the feeling of justice, which knows no individual relationships; Veneration looks up to the

Deity, the Creator of all; and Hope wanders in its highest direction into futurity, where, in the vast abundance, there is space for the wanderings of all without any mutual interference.

Let us suppose the Moral Feelings raised to their proper dignity, and then what will be the condition of man in regard to HAP-PINESS? He loses his wife; his Amativeness and Adhesiveness are painfully affected; but he remembers that the object has been taken by the will of the Creator; and his Veneration and Conscientiousness immediately dictate submission to the will of this great and good Being. These faculties being in activity, the pain produced by the lower feelings is diminished, and the individual experiences the highest enjoyment, placed though it be, in the exercise of the higher; and if his hope is justified in expecting that hereafter he and she, most "beloved on earth, will meet again, then another flow of blessed feeling will pour over his soul, and will heal with its balm those wounds just before made.

Again, let us take the mother, deprived of her child. Her Moral Feelings in activity, she will have her comfort also; she will see the hand of a wise God; will know if believing in Christianity, her child to be in bliss, and now no longer to be liable to those troubles through which the little one must necessarily have passed, had life been granted.

Let us take the friend who has lost him who shared all his comforts and sorrows. He, being deprived of his earthly friend, looks, in the activity of his higher feelings, to that heavenly friend who is closer than a brother; and he too, if a Christian, can look to that shore where earth-divided friends meet to part no more.

To refer to the condition of the man who has lost the approbation of those of his fellow-men, with whom he is more directly connected. Let this individual be living under the power of his Moral Feelings, how triflingly will this loss be estimated. He will have the conviction that he has acted in conformity to the dictates of Conscien-

iousness; he knows that the good of the whole human race has been his aim; and perhaps he seeks the praise of God rather than the praise of men. Indeed how much happier would men be, were they, in their inventions and discoveries, to keep as uppermost in their minds the benefit of the human race. Then, the denial of a tribute to their deeds would not be so bitter as it is; they would rejoice in the conviction that posterity would be benefitted; and the sordid desire of praise would be engulphed in the higher feeling of good to mankind.

Again, take the man who has lost his wealth, but who, fortunately, had his treasure of good deeds in heaven, and looks forward to the riches treasured up there as his possession; how moderated will be the pain of his Acquisitiveness. He will, by looking on the possession which no power can take away, be enabled to overlook that which has been removed. And, knowing that his God has decreed the loss, he submits with joy, convinced by happy expe-

rience, that all things work together for good to them that love God.

From these views, it will be clearly seen that the best means of attaining happiness consists in keeping the Moral Feelings supreme; and the reason why this supremacy confers happiness is dependent upon the circumstance that the objects looked to by the Moral Feelings are not liable to change; and consequently as the mind is fixed upon unchangeable objects, the pains produced at the loss of objects, appealing to the Animal Feelings, will be diminished.

Taking this philosophical view, the goodness of God in giving man a revelation, wherein are made known the highest objects on which the Moral Feelings can outgo, is strongly exhibited; and the suitableness of Christianity, wherein these objects are embodied, as a source of happiness, is equally clearly exhibited.

Keeping this view in mind, a duty enjoined by Christ on his followers, thought by many to be harsh and severe, will be seen to teem with kindness to the human race. He taught that, "He that loveth father, or mother, brother, or sister more than me, is not worthy of me." In other words, it is essential for the happiness of man, that the relationships founded on the Animal Feelings must not stand in competition with those founded on the Moral.

Christianity is indeed an embodying of objects appealing to the Moral Feelings; and it follows, necessarily, that just in proportion as Christianity is received, just in proportion will men be happy; and the reason being now made clear why that happiness, connected with the exercise of the higher feelings, is the one only that is lasting, every one must see the importance of seeking it where it is to be found, namely, in doing justly, in loving mercy, and in walking humbly with God; the activities of these feelings.

This interesting subject cannot be concluded without noticing another peculiarity of Christianity: it is that Christianity was the first system that had the boldness to claim the unabated dignity to the Moral Feelings. Many philosophers have allowed a departure from justice for the sake of a friend; and all agreed to raise the love of country to the highest pinnacle. But Christianity knows only one country, that is, the world; it knows no friendship but that of truth and moral goodness: it allows of no individual attachments as supreme; but ever requires and proffers the wide extension of feeling to be had in seeking the benefit of man and the glory of God.

Who then can say that God is not good, when he commands, "Set your affections on things above?"

ESSAY III.

ON VENERATION.

A BEAUTIFUL simplicity exists in all the observations of Gall. The works of God are simple, and Gall delighted in their investigation. He was continually engaged in studying peculiarities of character, and sought diligently to ascertain what peculiarities of cerebral condition are attached to individual dispositional, or intellectual peculiarities. Coveting earnestly facts, he always found the materials before he erected the building. His was no airy fabric: it was solid, massive, and grand. As an illustration of these statements, and as a means of enabling the reader to understand the

principles to be laid down in this Essay, a brief account of the discovery of the organ of the faculty under consideration may be given.

Gall had observed, in his brothers and sisters a great difference in disposition and powers of intellect. One of his brothers had a strong tendency to devotional pursuits. His toys were church-ornaments, made by himself. On growing up, finding that his father intended him for a merchant, he ran away, after being a few years in the business, and became a hermit. At Dr. Gall's request, he was permitted to pursue his favourite object; and lived and died in the constant exercise of devotions and mortifications. In him, the particular part of the head connected with the faculty, was large. Dr. Gall observed, in addition, that of those who were in priests' orders, some had undertaken the duties from delight, some from pecuniary emolument; and he found in the former, the same organ large, in the latter, small. With the view of confirming his observations, he visited monasteries, convents, and other places, where opportunities for examination were afforded, and found the development of this part, and the tendency of the mind therewith connected, always correspondent.

Persons having this organ large, are very deferential in their manners; they apologise, when they speak; bow also.

The Indian calls this organ into activity, when he worships his image of wood and stone. The tory, when he adores a king. In the Asiatic head, this organ is large: and the blind submission these individuals pay to their rulers is well known.

It will be perceived, from this account, that Veneration gives rise to a simple feeling of devotion, or to a simple tendency to adore. It does not guide the individual to the object fitted to be adored. It may equally readily, so far as itself is concerned, be engaged in worshipping Satan as the great and good God. Often has it been directed into such base channels. Read Pagan history, and what is presented? Devotional services offered to objects the

most vile; to beings the most polluted; the services themselves being correspondent.

But it cannot be supposed that a good and wise God would bestow a faculty giving rise to devotional feeling without attaching to it other faculties for its guidance. No: for Phrenology has demonstrated that He has placed Veneration in the midst of the higher faculties, like the centre stone of an arch. It serves to link all together: but without the rest, it cannot fulfil its purposes. On each side of the organ of this faculty is HOPE; behind is the organ of FIRMNESS; having on each side that of Conscientious-NESS; whereas, anterior to Veneration, is the organ of BENEVOLENCE, and then the Intellectual Faculties. All these are necessary to direct Veneration aright; and all must act in unison.

But Veneration often acts alone, inducing what is called Piety. We talk of "pious heathens;" hence men are continually met with who are "pious," but not "religious;" that is, they exhibit the activity of Veneration, without the effects arising from this

faculty being properly directed. Many, moreover, who are strictly attentive to, and appear to feel delight in the forms of religion, and the feelings by these forms produced, are living in the continual neglect of these higher moral duties, which Christianity enjoins. All this arises from the unguided and unenlightened activity of the faculty under consideration.

This distinction between "piety" and "religion" is held to be important. Simple piety, be it remembered, is the unguided activity of Veneration; whereas Religion is its activity, guided by the Moral Feelings, enlightened by the Intellect. This distinction is found in the classic writers. Virgil, in describing the hero of his poem, Æneas, characterise, him as "pius Œneas," "pious Æneas;" yet this individual, so far from acting in obedience to the moral law, disregards the obligations of hospitality, gratitude, and moral duty, in fleeing from Dido; and yet, so accurately does the poet keep up the distinction, that this violation is

made obligatory upon him by the gods' command to depart.

To show the difference between piety and religion, another illustration may be given. The London Phrenological Society possess a cast of John Gillam, the murderer of Maria Bagnall, at Bath. "This man was to all appearance more than usually religious," says Mr. Crook; " he constantly attended the service of the established church, and regularly partook of the holy supper: yet for some years past he had been in the habit of pilfering from his mistress (Mrs. Cox). A few months before the death of the unfortunate Maria, she had detected many of his misdeeds, and he, feeling that not only his character but even his life were altogether in her power, determined to destroy the only evidence, as he believed, that could be brought against him. This he accomplished, one evening, after having taken a seemingly friendly supper with his victim, by beating her about the head with a large, and as is thought, a

sharp-edged stick. In him, the organ of Veneration is large.

It may be urged, as a still further illustration of the difference between piety and religion, that the Apostle speaks of those who had "the form of godliness (piety) without the power."

Allowing these distinctions to be accurate, let us bear in mind the truth, that, to Phrenology mankind are indebted for a knowledge of that PECULIARITY IN THE MENTAL CONDITION, which demonstrates the possibility of a man being pious and not religious.

Simple piety is therefore to be considered as the unguided activity of the faculty of Veneration. Religion, the activity regulated by the faculties with which it is connected. There is an abundance of the pious; but the religious are truly a little flock.

With the grand object in view of exalting Religion, and showing that much of the devotion of the present day is mere piety, as before defined, this Essay has been written.

In order to make the following statements and illustrations more clear, piety will be spoken of under the name of outward devotion; Religion being named inward devotion.

Every part of the body is placed in certain relations to other bodies, and the constituent parts of its own mass, so that they, when presented or acted upon, excite the said part to action; they are, in other words, its appropriate stimuli. These stimuli may be injurious or beneficial; they may excite the part to a diseased or a healthy action. Thus it is with the brain, the organ of the mind. Some bodies and circumstances are placed in such relations to the brain as a part of the animal machine, that they, when made to act thereupon, excite this organ. This excitation may be proper or improper, according to the nature of the excitement, which will, it is evident, be connected with the nature of

the existing cause. As this capability of excitement pertains to the brain, as a whole. it pertains also to its individual parts. The part of the brain connected with the faculty of Veneration shares with the rest, and this part may be excited by a great variety of stimuli. The excitement that is proper can arise but from one source only: all other excitements are improper; they produce mere outward devotion. In fact, they stand as existing causes in the same relation to this faculty, and its organ, as spirituous liquors to Destructiveness. They excite. by inducing a peculiar condition of the animal frame, without at all influencing the higher feelings or the Intellect.

As this view is important another illustration may be given. Every one is aware of the influence of a sunshining day in inducing that pleasant calm of the mind, called good temper: but how different is this good temper from that originating in a sense of the propriety of trying to rule our feelings and to make every one as happy

as ourselves. The one arises from an outward cause; the other from an inward. So in regard to devotional feelings, as connected with Veneration.

The different causes exciting this faculty to activity, may now be brought forward; their nature investigated, and their influence made known. Those inducing outward devotion may be first noticed: then those inducing the devotion that is inward.

The following is a quotation from a daily periodical "Funeral of Carl Maria Von Weber:

"As the whole moved slowly through the principal aisle, the band commenced the opening movement of Mozart's Requiem, the words of which are as follows:

'Requiem æternam dona eis, domine, 'et, lux perpetua luceat eis.'

The slow movement and fugue, which justly number among the masterpieces of musical composition, were both sung in full chorus: and, deriving an increased effect from the solemnity of the occasion,

became almost sublime," and "produced the highest devotional feelings," adds another Journalist.

Very few perhaps would mistake this devotional feeling, here noticed, as produced by the fine and solemn music, for true devotion. It is purely outward and depends upon a physical relation established between certain sounds and the faculty of Veneration. No moral feeling is acted on through the Intellect; the effect is dependent simply upon the influence of certain sounds.

But this mode of excitement is one introduced in places where those who attend, are taught to believe that God is there worshipped in spirit and in truth. In this remark reference is made to that, as practised, unholy system, both in the church of Rome and church of England of chaunting parts of the services. By the excitement thus produced Veneration is called into activity, certain devotional feelings pass over the mind; and the ignorant, yea, even intelligent hearers and attendants are often deceived into the belief that these feelings originate in the influence of the truth acting through the moral feelings and intellect, and ascribe to communion with the Spirit of God these risings of outward devotion. In testimony to the justness of this conclusion how frequently do we hear individuals speaking of the solemnity of the service, who cannot relate any particulars respecting the truths stated; the passages chaunted, the sermon preached in connexion with the service, of the solemnity of which they are continually talking.

Let not the dissenter, however, imagine that he is free. Outward devotion may be brought into existence equally as much by a fine choir of vocal as of instrumental music; and how often do we find it to be a recommendation of a chapel by persons who attend, that good singing is there. Many, while engaged in singing, experience an excitement of devotional feeling, indicated in some cases by peculiar gestures; this is outward devotion, insomuch as the excitement is not occasioned in the least

by the truths embodied in the verses sung, but by the stimulating influence of sounds upon the animal system.*

Another illustration of this outward devotion is to be offered. How common is it in the present day for pious people to go to churches to hear the Charity Children sing some anthem; they feel much delighted on such occasions, as evidenced by the following expressions which give vent to the feelings excited, "Pretty little dears! how sweet it is to hear them sing." "They're like the little angels." "How

^{*} It may be useful to meet an objection here, embodied thus: "Singing is praised by the Apostle, and musical instruments formed a part of the worship under the Jewish dispensation." The futility of this as an objection will be seen, when the mind perceives the difference between singing, considered as a means of giving utterance to feelings produced by the truths string, and as a cause of these feelings. The Apostle says, " in psalms and hymns, and spiritual songs, singing with grace in your hearts to the Lord." The slightest reflection will convince any unbiassed mind, that the truths embodied in these psalms, hymns, and spiritual songs, are the sources of the delight experienced. No objection is or can be made against singing, as an auxiliary to devotion; all that is to be guarded against, is what too frequently happens, that this do not become the most active cause.

delightful." "I felt so, that I could have wept." Many such remarks are made and little do these individuals imagine that the devotional feelings therein embodied are merely outward; and have nothing truly religious in their character. Their Philoprogenitiveness and Benevolence were excited by the CHILDREN; their Veneration was called into activity by the sounds, and then their Comparison associated these little singers with the little angels that masons have cut upon tombstones. And yet man is taught that this is religion.

To shew more fully that no inward devotion is necessarily produced on such occasions, a quotation may be given from a letter penned by one then not in the least religious: "Yesterday in the afternoon of a fine summer's day, we went out to the church in the wild; it is a lovely, little; gothic building, standing on the brink of a steep hill, whence you have a view of scenerythe most delightful, the most varied. Two arched windows with painted glass occupy one side of the building; the wood

work inside is of plain oak, and every thing has the appearance of sober neatness. The little chubby boys, some with white and some with golden hair, clothed in their clean smock frocks, and the equally clean and tidy little girls, some apparently not more than three years old, interested me. The clergyman seemed an amiable young man, quite unaffected. The hearers were principally clean rustics. The tout-ensemble was simple and solemn. I felt what I never had experienced before. A kind of soft, religious awe came over me. But how much was this increased when the little innocents began to sing, with the aid of a rustic organ, the evening hymn. I felt what I cannot express. I could have knelt; and all the way home, my mind ran on in a strain of most pleasing devotional feeling. If ever I possessed devotion, it was then." " This interesting portrait gives us a beautiful exhibition of outward devotion, and of the means by which it was excited. All this was indeed mere outward devotion: the scenery, the state of the atmosphere,

the company, the young children, the rustic organ, the simplicity, the singing, affected Veneration, and excited it to activity. There is not the least said about the TRUTHS stated. No: these were not, as the gentleman has since acknowledged, the cause of the effect.

The faculty of Wonder is one of the primitive powers of the human mind. is delighted with any thing new, uncommon, or beyond the ordinary course of nature. Priestcraft has consisted, in a majority of instances, in an appeal to this faculty, and, through it, acting on Veneration. Thus, what are lawn-sleeves, mittred heads, bishops' aprons, the pastoral crocks, the priests' robes, the cassock, the cowl, the episcopal wig, but so many means of awakening Wonder, and thereby influending Veneration; and what is the devotion given origin to by such modes of appeal, more than outward: religion has nothing to do with it.

But outward devotion is, perhaps, no where so strikingly exhibited as in some

of the prayer-meetings of some of the sects of professors of Christianity; also in the meetings of the Jumpers and Ranters. Here are seen the ragings of outward devotion, instead of the calm, steady, and mild light. of genuine religion. As an illustration, the following account of a prayer meeting, on the truth of which perfect reliance may be placed, is copied from a letter of a friend. "One Sabhath evening, I went to a private prayer-meeting of ----* About twenty people were assembled; the proceedings had commenced, and a hymn was being sung when I entered. The verse was scarcely concluded, when all present were instantly on their knees; a person immediately began to pray; speaking so low as scarcely to be heard, but at last vociferating so loudly as toibe heard in the street : he had scarcely cericluded his prayer, when, as the people were rising, a person gave out a hymn, the THE STREET STREET, STR

^{*}The name of the sect is not mentioned; as though such meetings more particularly pertain to one class of dissenters, yet the same will-worship is to be found in almost all, modified, it is true, by circumstances.

singing of which was immediately commenced. Two verses were completed, and at the completion of the second, without a moment's delay, the people again knelt, and another person began to pray in the same low tone, but rapidly augmenting the force of his voice until the highest pitch was obtained. This prayer done, momentarily other words were given out to be sung; two verses completed, a prayer was instantly commenced: thus this system was carried on, until a woman began to pray; when a sense of duty and a feeling of disgust obliged me to depart."

Here, by the continual and never-ceasing bodily and mental activity, the animal system was worked to a high pitch of excitement; so high, indeed, that many have returned from such meetings insane. That such excitement is outward devotion, no one can doubt: but it may be useful to pause, in order that it may be perceived how Phrenology adds its demonstration of the truth of such a conclusion. This science proves that the Creator has given a

faculty of Veneration, which He has appointed to act through a certain portion of the brain. This portion is surrounded with other portions, the organs of other faculties. From the connexions existing between the different parts of the brain, Veneration may be excited by a variety of means. Thus, an increase of the flow of blood to the brain, calls the mind into increased activity. Veneration may, in this way, be called into action; and such an action is that induced in the afore-mentioned circumstances: but how different is this from that produced by truth being received through the Intellectual faculties, then acting on the Moral Feelings, and then awakening Veneration.

These views being understood, the futility of the following objection will be clearly seen. "You allow," says a devotionist, "that I have devotional feelings, but how could I have such feelings, unless the Creator visited my soul?" The reply is, the Creator, it is true, has implanted in your mind a faculty giving you devotional feel-

ngs, but in addition He has given other aculties to direct the former to its proper bourne, and to excite it to its proper activity.*

Equally outward are those devotional feelings produced and sustained by motions of the body, as with the Jumpers. Every one knows the powerful animally-exciting influence of dancing. The Jumpers have recourse to this mode of excitement, and then ascribe the wild pulsations of a rapidly-beating heart, and the frenzies arising from the brain being charged with blood from the bodily activity, to the quiet and moderating influence of the Spirit of Truth.

Perhaps no illustration of that excitement of Veneration, which has been named outward devotion, better than that given by

[•] It may be imagined from this and other passages that the Essayist has no belief in the influence of the Spirit of God, as it is argued that the faculties of the human mind are constituted to guide man to the proper object of Veneration, and to the proper way of adoring. But this is said from conviction: these faculties enlightened are sufficient; but the fall has darkened them; hence the necessity of the Holy Spirit, to pour over them His enlightening influence.

Virgil regarding the Sibyl whom Æneas went to consult, can be afforded.

"Ventum erat ad limen, quum virgo Poscere fata Tempus, ait: Deus, ecce, Deus. Cui talia fanti Ante fores, subito non voltus, non color unus, Non comtæ mansere comæ; sed pectus anhelum, Et rabie fera corda tument; majorque videri, Nec mortale sonans; adflata est numine quando Jam propriore Dei.

"Talibus ex adyto dictis Cumza Sibylla Horrendas canit ambages, antroque remugit, Obscuris vera involvens: ea frena furenti Concutit, et stimulos sub pectore vertit Apollo.*"

On reading this, a striking analogy is perceived between the effects of this excitement and those exhibited by the devotion-

Greater than human kind she seem'd to look, And, with an accent more than mortal, spoke.

^{*} Englished thus:

[&]quot;Now to the mouth they come. Aloud she cries,
"This is the time! inquire your destinies!
He comes! behold the god!" Thus while she said
(And shivering at the sacred entry staid),
Her colour changed; her face was not the same;
And hollow groans from her deep spirit carre.
Her hair stood up; convulsive rage possess'd
Her trembling limbs, and heaved her labouring
breast.

ists described; and the exhaustion of energy, the necessary consequence of excessive activity, experienced by the Sibyl, and ascribed to the absence of the god, is an exact counterpart to what the above people call "the hidings of God's face;" which are nothing more than exhaustions of the individuals' animal energy.

Many other illustrations of outward devotion, as arising from the unguided activity of Veneration, might be given. Two or three more may be noticed. How many are in the habit of experiencing a devotional feeling steal over their soul on entering

Her staring eyes with sparkling fury roll; When all the god came rushing on her soul. Swiftly she turned, and, foaming as she spoke—"

[&]quot;Thus, from the dark recess, the Sibyl spoke; And the resisting air the thunder broke; The cave rebellow'd, and the temple shook. The ambiguous god, who ruled her labouring breast, In these mysterious words his mind express'd: Some truths revealed, in terms involv'd the rest. At length her fury fell: her foaming ceas'd, And, ebbing in her soul, the god decreased.

a Church.* Hervey abounds with descriptions of such feelings; but these are outward devotion: the feeling thus excited occasions an importance to be attached to the building altogether in opposition to the dictations of the Moral Feelings and the Intellect, which look upon the building with delight, just in proportion as it is suited to the performance of those duties connected with the worship therein attended to. The absurdities to which this excitement of Veneration has led, are numerous. One is the practice of a bishop consecrating the fabric, and the ground within a certain distance around it: a practice so essential, that no services of devotion can be performed therein until this process, an indubitable relic of Popery, or perhaps, more distantly viewed, of Paganism, has been gone through. Another absurdity, yea,

^{*} This term is here used in its abused meaning. A church, in the Christian system, being, not the building, but the individuals, who, from a love to God and one another, meet together for the worship of Him they love.

worse than an absurdity, is, when this outward devotion leads individuals to persevere in subjecting their fellow-men to the most appressive parochial rates, in order to support a building, tottering from its age, and in need of continual repair, simply because this building is venerable from its antiquity, and has (another relic of Popery) attached to it the titular dignity of a saint. When will the human mind free itself from such a disgraceful bondage?

The faculty of Imitation has, by its influence, excited Veneration, and thus induced outward devotion. Thus, because Jesus Christ suffered many privations, and finally death, some have been influenced to exhibit. the activity of their veneration in performing penances; and some have had these faculties so much excited, as to crucify themet selves, in imitation of Christ. It is true that the Christian is to look upon the Lamb. of God as an object for imitation; and, in imitating him, is to mortify his members; but this mortification does not consist in having his hair cut short; in having a particular shaped coat, or a broad brimmed hat; it does not consist in eating fish on a Friday, or in abstaining from all animal food, save the above, in Lent; nor does it consist in walking a pilgrimage with bare feet, or with unboiled peas in his shoes; it does not consist in denying himself the necessaries of life, or suitable garments for clothing; it does not consist in retiring from the world to become a hermit, or standing on a pillar, exposed to all the inclemencies of the weather: but in the continual exercise of his Moral Feelings; which in order to bring into constant activity, require the Animal Feelings to be subdued. It is this subjugation that constitutes the mortification. All other mortifications are to be classed under outward devotion.

One more concluding illustration. This kind of devotion may be traced where few suspect it to exist. It may be seen in the sober congregation, where no one speaks but the Minister. How many are to be found, who, by an appeal to their Benevo-

lence, Wonder, and Ideality, will shed the tear of apparent contrition, and offer the sigh of, one would think, a spiritually wounded heart. But this is outward devotion; these Feelings have been affected by the gestures, the pathos, the tout ensemble of the preacher; the Intellect was not enlightened; and Veneration was excited through the Feelings simply, and not through the Intellect in connexion therewith. Many who think that their feelings or frames, as they are technically called, are heavenly, are little aware that, very often, their experience is the product of improper excitement. The tear is not the index of conversion; the frame not always the seal of God's presence.

The characteristics of outward devotion having been illustrated, the nature of inward devotion will now be better understood.

The devotional feeling simply considered

is the same both in outward and inward devotion; that is, in both cases, the faculty of Veneration is active; the difference being, that, in the latter this faculty is called into activity through the moral feelings, enlightened by the Intellect. How interesting then is the locality of this faculty in the Head. It is surrounded by the organs of those faculties by which it can alone be called into proper activity. All these must be brought to bear before Veneration can produce a feeling of devotion, modified in such a manner as to constitute inward devotion.

How then are the faculties connected with Veneration, in producing inward devotion, to be called into activity; it must be by the presentation of facts. View the facts of any system of religion, and what do they present? objects which Benevolence and Conscientiousness can never contemplate with delight. Examine Paganism in all its varied characters, and no system can be found which can awaken all those faculties, necessary to be rendered active before

Veneration can be called into proper activity. The facts of Christianity have been already noticed; and these will be discovered by an attentive examination, to be objects on which the moral feelings and intellect can outgo with the greatest delight.* Allowing these to be such, the question arises, how are they to be received? The intellectual faculties are given to man, to enable him to perceive, understand, and reflect; and the moral feelings to judge of the morality of the conclusions aimed at. It is evident that, for Veneration to be excited properly, through these two classes of faculties, the objects must be discovered by the Intellect to be true; and then must be understood; when understood, the moral sentiments must approve of them; and Veneration, acting upon this approval, is excited to activity, and produces true devotion.

These then are the successive steps by

^{*} For a demonstration of this, the reader is referred to "The Internal Evidences of Christianity, deduced from Phrenology." Simpkin and Marshall.

which Veneration may be properly excited. Leave out any one, and the devotion is not inward, or true. If the moral feelings be excited without the Intellect; "a zeal without knowledge" is produced; an enthusiasm burning brilliantly for a short time, but extinguished by the first opposing flood; but which during its continuance has deluged the world with blood, has set the father against the son, and the son against the father; which has generated a stream of acrimonious hate, that has eaten its way to the core of generous feeling, and has destroyed for a generation all the fruits of the kindlier feelings.

Such are the effects when the Moral Feelings act without the Intellect; whereas when the Intellect acts without the Moral Feelings, a cold speculative philosophy is produced; devotion is then "wisdom beyond measure."

The perfect agreement of these views with the account that Christianity gives of the devotion, that is acceptable in the sight of God, may be seen in a variety of Scrip-

ture passages. Thus He who spake as never man spake, observes, "God is a Spirit and they that worship Him, must worship Him in spirit and in truth; the latter embracing the matters received by the Intellect, and approved of by the Moral Feelings; and the former the excitement of Veneration, thereby produced. But, perhaps, nothing could more strikingly point out the accordance between the Phrenological views and those of the Scriptures, than the parable of the sower, related in the Gospel of Matthew. " And he spake many things to them in parables, saying, Behold, a sower went forth to sow; And when he sowed, some seeds fell by the wayside, and the fowls came and devoured them up: Some fell upon stony places, where they had not much earth, and forthwith they sprung up, because they had no deepness of earth; and when the sun was up they were scorched; and because they had not root, they withered away; And some fell among thorns; and the thorns sprung up and choked them: But other fell into good

ground, and brought forth fruit, some an hundred-fold, some sixty-fold, some thirtyfold." This parable is afterwards explained: the seeds being the truths proclaimed by Christ: the way-side refers to those who heard these truths, and understood them not; the stony places are those who heard the word, and with joy received it; that is, it pleased their Moral Feelings; but they did not understand it: hence temptations to act contrary to what these truths taught, caused them to take offence. The thorns represent somewhat similar characters, except that their own circumstances lead them to neglect the truths once heard; but the good ground is "he that heareth the word, and understandeth it, which also beareth fruit, and bringeth forth, some an hundredfold, some sixty, some thirty."

Thus it will be clearly seen, that the only devotion that is lastingly influential, is that founded on the activity of Veneration, induced by the activity of the Moral Sentiments, enlightened by the Intellect. It will also be evident, that many had pleasant

feelings (" outward devotion,') on hearing the word; but they did not bring forth fruit, because they did not understand that which they heard.

Paul, in writing to the Ephesians, in order to stir them up to exhibit the moral influence of the truths which they, as Christians, believed, remarks: "This I say, therefore, and testify in the Lord, that ye henceforth walk not as other Gentiles walk, in the vanity of their mind, having the UNDER-STANDING DARKENED, being alienated from the life of God. THROUGH THE IGNORANCE that is in them, because of the BLINDNESS OF THEIR HEART; who being past feeling, have given themselves over unto lasciviousness, to work all uncleanness with greediness. But ye have not so learned Christ." Could any thing be more plain, so strikingly conformable to the principles which Phrenology has discovered. Let it not, therefore, in future be said, that Phrenology and Christianity are not connected: but let all rejoice to think that a science which will. ere long, ride triumphant in the chariot of true utility, be hailed as offering its strength in confronting the enemies of the Truth.

This subject invigorates the soul; it tells the mind how extended is its grasp; and so much delight does it afford that to pursue it would be a source of the highest joy: but at present it is necessary to desist, and leave to the sober consideration of the reader the principles which have been stated, explained, and demonstrated.

FINIS.

GΘ

Of

C. BICHARDS, PRINTER, 100, ST. MARTIN'S-LANE, CHARING-CROSS.

WII. to . .

APPENDIX.

The circumstance of pain being connected with the exercise of those faculties to which the Creator, in order to call into activity, has attached pleasure, is, upon any theory deduced from nature, difficult of explanation. Indeed, the only satisfactory solution is that given in Revelation, where the loss of the bliss that man would otherwise have enjoyed, as caused by the fall, is particularly made known. This subject will be considered more fully in reference to Phrenology, hereafter.

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MANUAL

OF

PHRENOLOGY,

AS

AN ACCOMPANIMENT

TO THE

PHRENOLOGICAL BUST.

To write to please an envious critic few could, To write to please an interested one few would. Lacon.

"We come into the world to play our part,—and then vanishes the glory of the scene. Thrice happy he who has performed it well."

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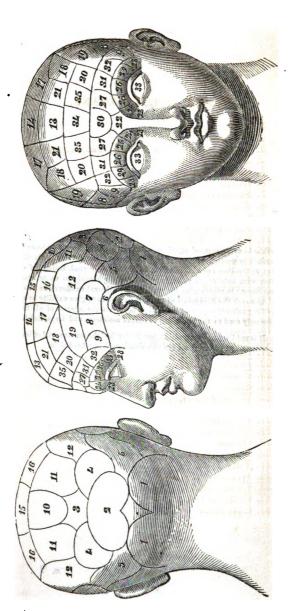
1835.

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"Truth is to every man of equal importance; for it is the only secure basis of right conduct respecting ourselves, our fellow-creatures, and towards the Great Supreme: as realities are a common stock for the public good, instead of opposing each other with indecorous vehemence, we enght amicably to unite against the miscreant Error; to search after the truth with reciprocal candour; be as sincerely disposed to weigh the arguments of another as we are to give validity to our own. Truth is the professed object of all, and it is certain the interest of all to possess it; but the only road to the possession is that of assiduous and impartial inquiry."

N. B. It is not literary composition, but the truth of the science, and of irrefutable demonstration of facts, which are (in this small work) pretended to.



NAMES OF THE ORGANS.

- 1. AMATIVENESS.
- 2. PHILOPROGENITIVENESS.
- 3. Inhabitiveness or Concentrativeness.
- 4. Adhesiveness.
- 5. COMBATIVENESS.
- 6. DESTRUCTIVENESS.
- 7. SECRETIVENESS.
- 8. Acquisitiveness.
- 9. Constructiveness.
- 10. SELF-ESTEEM.
- 11. LOVE OF APPROBATION.
- 12. CAUTIOUSNESS.
- 13. BENEVOLENCE.
- 14. VENERATION.
- 15. FIRMNESS.
- 16. Conscientiousness.
- 17. HOPE.
- 18. MARVELLOUSNESS OR WONDER.
- 19. IDEALITY.
- 20. MIRTHFULNESS OR WIT.
- 21. Imitation.
- 22. INDIVIDUALITY.
- 23. Form.
- 24. Size.
- 25. WEIGHT OR MOMENTUM.
- 26. COLOUR.
- 27. LOCALITY.
- 28. Number.
- 29. ORDER.
- 30. EVENTUALITY.
- 31. TIME.
- 32. Melody or Tune.
- 33. LANGUAGE.
- 34. Comparison.
- 35. CASUALITY

PREFACE.

Amount the numerous branches of knowledge which claim the attention of the human mind, none can be possibly of more importance than that wherein man himself is the subject of the inquiry. Whatever most intimately concerns ourselves must be of the first moment. The principle of self-love which is inherent in our nature, whatever means we may take to conceal it, suggests that no other species of knowledge can stand in competition with it: every thing is deemed highly interesting which has an immediate relation to ourselves; and the degrees of its importance are measured by its influence upon our own well-being.

Phrenology, being the most correct and scientific mode of studying the natural history of man, shewing the relations between the cerebral organization and the manifestations of the mind, becomes of great importance, as the basis of the doctrines of insanity, education, and social life.

"The natural history of man," says Professor Lawrance, is yet in its infancy." "Little progress," says Dugald Stewart, "has hitherto been made in the philosophy of the mind." Dr. Haslam, in his Observations on Madness, says, "that whenever the functions of the brain shall be fully understood, and the uses of its different parts ascer-

tained, we may then be enabled to judge how far disease, attacking any of those parts, may increase, diminish, or otherwise alter its functions.

Our object in this small work is, as with the collection, to illustrate and invite further attention, with the view of endeavouring to establish a more correct inquiry into the natural history of man, and to prove that the brain is not a single organ of the mind, but that it consists of manifestations of the mind, each having a distinct function or office assigned to it,—hence the importance of Dr. Haslam's observations.

Phrenology is still with some imperfections, but can arrive at maturity amongst enlightened men by slow degrees; it therefore becomes necessary to be careful in unfolding and going into the first principles of it, and studying the same with care.

Man has, not without reason, been called an epitome of the universe, his mind being subject to all the laws of Nature; and, during some part of his existence, his state is very like that of the vegetable system: he rises by imperceptible degrees to the animal, and at last to rational life, and has in him the principle that belongs to all. We are placed in this world by the Author of our being, surrounded with many objects that are necessary or useful to us, and with many that may hurt us. We are led, not by reason only, but by many instincts, and appetites, and natural desires, to seek the former and to avoid the latter.

In cases, however, where Nature has not been so liberal as to render the formation of its power possible, merely from the mind's own internal resources, much may be done by judicious culture in early life; and in all cases whatever, in such a state of society as ours, its growth,

even when most completely spontaneous, cannot fail to be influenced, in a greater or less degree, by instruction, by the contagion of example, and by various other adventitious causes. It is reasonable, therefore, to believe, that there are numberless minds in which the seeds of taste and intellect, though profusely sown, continue altogether dormant through life; either from a total want of opportunity to cultivate the habits by which they are to be matured, or from the attention being completely engrossed by other pursuits. In instances such as these, it is the province of education, which may be most essentially assisted by Phrenology, to lend its succours, to point out and invigorate, by due exercise, those principles in which an original weakness may be observed, and by removing the obstacles which check the expansion of the powers in any of the directions which Nature disposes them to shoot, by assisting her to accomplish and perfect her designs.

By a careful study of Phrenology, combined with education, in the disposal of youth, what a field for research is open?—for when we reflect on the different branches of human knowledge, it might seem that, of all subjects, human nature should be the best understood; because every man has daily opportunities to study it in his own passion and his own actions. Human nature, however, is little understood. Writers of warm imagination hold that man is a benevolent being, and that every man ought to direct his conduct for the good of all, without regarding himself but as one of the number: those of a cold and contracted mind hold him to be an animal entirely selfish; to evince which examples are accumulated. But neither of these systems is that of Nature. The selfish system is contradicted by the experience of

ages, affording the clearest evidence that men frequently act for the sake of others, without regarding themselves, and sometimes in direct opposition to their own interests. Man, in fact, is a complex being, composed of principles, some benevolent, others selfish; and those principles so justly blended in him as to fit him for acting a proper part in society. Many enter so deeply into the passions or bias of human nature, that, to use the painters' phrase, they quite overcharge it; they forget how various a creature it is they are painting; how many springs and weights, nicely adjusted and balanced, enter into the movement, and require allowances to be made for their several clogs and impulses ere you can define its operations and effects.

The infirmity of human nature is a topic on which the profligate love to enlarge; they are apt to deduce an argument from it no less injurious than fallacious. They infer from the concession that man is naturally weak and corrupt that the precepts of strict morality are utterly useless, and that they originate in one of the principal arguments of human imbecility or ill-grounded pride.

Man is indeed a weak creature: he has strong passions; but he has also strong powers within him to counteract their operation. He possesses reason; and his happiness certainly depends upon the voluntary use or abuse, the neglect or the exertion, of this noble faculty.

It seems probable, that many who urge the inefficacy of philosophical and moral precepts are only endeavouring to excuse their own indolence. They who feel themselves, little inclined to correct their misconduct are very solicitous to persuade themselves that they are unable. Indeed, wherever human creatures are found, there are also to be

found vice and misery. Nor is this appearance only among the rude and illiterate, but among those who are adorned with all the arts of human knowledge. Observation affords many examples of those who, after having recommended virtue with all the appearance of sincerity, have at last fallen into the disgrace and wretchedness of singular profligacy. Such instances do indeed occur, and they are usually blazoned and exaggerated by triumphant delinquency. But allowing what indeed the uniform decisions of observation and reason declare, that human nature is weak in the extreme, yet we would draw a different conclusion from that which is deduced by many.

The nature of man is susceptible of improvement; therefore we argue, let every effort be made to acquire it. It cannot be said that the endeavour must of necessity be abortive; it cannot be said that we have not natural incitements sufficient to encourage a vigorous attempt. We have sensibilities of moral recitude—we have a natural love of excellence—we have intellectual powers capable of improvement—we have precepts innumerable—and, to the honour of human nature let it be added that, example also greatly abounds.

Many individuals, who enrolled themselves among the sects of ancient philosophers, have exhibited most animating proofs of the power of human nature. It is not to be supposed that they possessed faculties more in number, or more perfect in their kind, than the present race; but they loved excellence, and they believed they were capable of it. That belief operated most powerfully on their exertions; they succeeded in their attempts, and stand forth among mankind, like colossal statues amongst a collection of images less than the life. We hope,

therefore, it will be rendering an essential service to mankind, if we can revive this belief among those of the present day, that the science of Phrenology will, by a wellselected and judicious study of it, lead to the improvement of the mind. Proofs we have, that, during intense studies, an alteration in those parts of the head relating to the studies has taken place in several instances, while little or no alteration has taken place in the other parts. The fact is so, and facts are stubborn arguments; which induce us to entertain the idea, that Phrenology will prove beneficial to mankind, and that proper means, by the study of it, may be introduced, much to the interest and benefit of the rising generation, as also in the treatment of mental diseases.

It is fair to presume, that what is attainable in science may, to a considerable extent, be effected in morals, in education, in mind. So in life, if you inform your disciple that he is able to reach a degree of excellence, and urge him to the attempt, he will frequently make great advances, and improve to his own astonishment: but indulge his natural indolence, timidity, or despair, by expatiating on the irremediable weakness of human nature, and you effectually preclude even his endeavours, and add to his natural imbecility. Here Phrenology will lend its aid, by the power it will give in early youth, to point out the weakness of those so unfortunately organized, which, if done, steps may be taken to invigorate, excite, and cultivate, by judicious arrangement, the faculties.

In the works of art, sculpture, and in painting—in the subordinate operations of mechanical ingenuity—to what perfection does the hand of man attain! "When a savage sees a watch, he adores it as a god. No earnestness of

assertion would convince htm that it was a work of art, and of a creature in all respects like himself, except in acquired dexterity." And can man improve himself so highly in the manual arts, in science, and in the productions of taste, and be unable to arrive at any real and solid improvement in the finest art and noblest science-the improvement of the mind? Half the attention and the constancy which is employed in acquiring skill in the occupations by which money is to be acquired, if bestowed on the melioration of the morals and a cultivation and improvement of the mind, would produce a most laudable character. Therefore, to attend to the workings of our own minds—to trace the power which external objects have over us-to discover the nature of our emotions, affections, and propensities-to comprehend the reason of our being affected in a particular manner, must have a direct influence upon our pursuits, our character, and our happiness; to do that and to point with the finger to the why and the wherefore of those differences in the mind, disposition, and character, after so many able writers on the philosophy of mind and man, appear to be left for Phrenology.

The science of Phrenology appears to be misunderstood by many persons: by some it has been considered as tending to fatalism and predestination, which arises from a want of due consideration; for the Phrenologist does not assert that the peculiar form of the skull directs the actions of mankind, but that the actions of mankind affect and produce them. A child or adult giving way to bad propensities, and constantly living in vicious habits, will cause an increase of the propensities; while, on the other hand, by avoiding bad actions and associations, and by

the practice of better habits, the organs of the meral semtiments and intellectual faculties will increase, and those of the opposite teadency diminish—the child or adult at the same time losing the desire for eyil actions. Thus Phrenology is but a visible evidence of the effects of conscience; and where the base passions are not kept down they will appear plainly on the form of the skull. These alterations are clearly shown in the changes of form which have taken place, illustrated with authentic narratives of the cases.

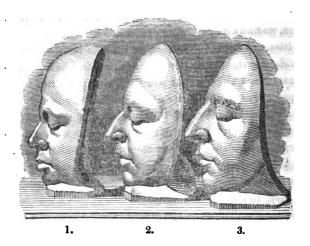
Phrenology lost much of its value, on its first announcement, from the misapplication of certain names given to certain organs. Thus destructiveness was called murder. It arose from the fact of Dr. Gall finding those murderers whom he examined invariably to have the organ large and marked; but observation shewed that this organ, which every one possesses, appeared more prominent as the passions for destructiveness increased. Again acquisitiveness was first called theft from a similar cause; thieves having this organ peculiarly large, and it is invariably strongly marked in all children and adults who are penurious and covetous.

The study of Phrenology tends to show the necessity and advantage of a high moral conduct in the heads of families and preceptors, leading others to the practice of virtue, and confirming it in their minds; and it should be applied in conjunction with the monitor within, to chace away the vices of mankind. It is certain, the science cannot be studied or understood by the uneducated or lower orders of society; but those of the educated class can impart to them its advantages by setting them the bright example of moral conduct, thereby leading them

to the practice of honest and virtuous actions. If the brain, which is the seat of the maind, is looked at, and considered with the alteration in the form of the skull following the working of the brain, it appears self-evident and conclusive, from the great number of changes of form which are now collected, that a change of form is not confined to the young alone, but is found to take place at various periods, from eight to eighty years of age; we having a great number of casts where change of form of the head has taken place with corresponding change of character between eight and fifty (nay eighty) years of age, as the following case will in part demonstrate.

CHANGE OF FORM.

We beg to draw attention to the following case, where six casts have been taken from the same individual at six different periods, the first three taken at eight, thirteen, and sixteen years of age, during which time his education was neglected; the latter three were taken at nineteen, twenty-two, and twenty-eight years of age, during which time (the first three years) education commenced, and the whole of the time he was constantly in high moral society, and employed with or by them; it being evident that, from example and moral conduct, the alterations in the form of the skull have followed the working of the brain.

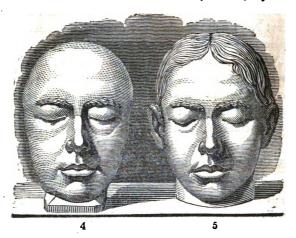


The busts from which these are taken are authenticated casts of the celebrated George Bidder, called at the period when these three, Nos. 1, 2, and 3, were taken, the "Devonshire calculating youth." Immediately after the fourth cast was taken, he commenced as a civil engineer, has been so occupied ever since, and is now engaged (January 1835) to superintend one of the difficult parts of the great Birmingham Railway.

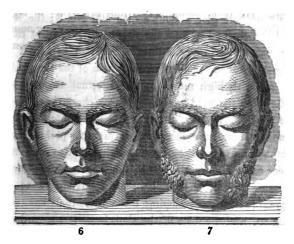
The cast, No. 1, was taken when eight years of age: we here find the forehead nearly upright, the anterior part of the moral sentiments, the reflecting faculties, constructiveness and ideality, eventuality, individuality, and number, all very largely developed, while the rest of the perceptive and intellectual faculties are moderately developed. By a reference to No. 2, which cast was taken at thirteen years of age, we find a deterioration in the reflecting faculties, moral sentiments, and ideality, with a slight increase in the lower perceptive faculties. By

reference to No. 3, which cast was taken at sixteen years of age, we find a much greater deterioration in the reflecting faculties and moral sentiments, which have receded a full inch during eight years, being the period between taking the cast No. 1 and the cast No. 3; during the latter time the perceptive faculties have got somewhat larger.

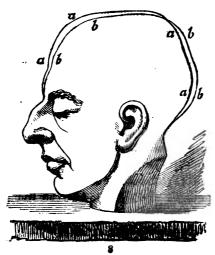
Now here is a curious fact of an alteration of the skull following the working of the brain, and, it appears to us, in perfect accordance with his occupation and the society in which he was placed during the eight years: for let it be remembered, that from the time of taking the first cast, which was at Bath, before he came to London, to the time of taking the third cast, his father was then going about from city to city, or place to place, exhibiting him for his extraordinary powers of mental calculation, and, being from the humbler walk of life, he frequently exhibited him in public houses, and in general taking up his residence in those places; it being probably not from choice, but from the convenience of there getting lodgings readily for a few nights. Now any one acquainted with the society that visits public houses is aware that very little, if any thing, was going forward that would gratify the moral sentiments or reflecting faculties; and it is in this part of the head, the seat of those organs, that we find a great deterioration going on, to the extent of one inch at least; at this time (when the third cast was taken) he was taken by the hand by some ladies and gentlemen; he was put to a superior school; and from that period he mixed in high moral and intellectual society: and mark the result which took place after he had been about three years under tuition, the whole of the time enjoying moral society with moral precept. He then, being about nineteen years of age, came to London, and was intended for a military engineer; when we took a fourth cast of him, No. 5, by com-



parison of which with No. 4, a front view of No. 3 cast, it will be seen that a great increase has taken place in the reflecting faculties and moral sentiments; the form of the skull answering the working of the brain during these three years of moral education and society; shewing, to demonstration, the effects of moral precept and direction in combination with education. It appears that he was a very short time occupied in military engineering, and that he then took to civil engineering. When he had been about two years and a half in the occupation of a civil engineer, we took a fifth cast of him, No. 6, by comparison of which with No. 5, it will be seen that the extension of the whole forehead is going on. After he had been near nine years occupied as a civil engineer, and nearly the whole time in the society of engineers of high reputation



and moral character, we took a sixth cast of him, No. 7, by which it will be observed, that a general expansion of the whole of the intellectual faculties and the moral sentiments has been going on: but to shew it more dis-



tinctly, we here give a double diagram, No. 8; the lines b, b, b, b, being taken from the fourth cast, taken at nineteen years of age, and the lines a, a, a, a, taken from the last cast, near nine years after, the whole of the time being engaged with high moral and intellectual society, and we find that the head has undergone a change in accordance with it; namely, the moral sentiments and intellectual faculties have increased during this period threeeighths of an inch in some parts, while, what to some may appear extraordinary, the propensities have got less during the same period, as will be seen by reference to the diagram; clearly developing the action that has been going on, and the form of the skull in perfect accordance with the working of the mind in the brain at the same time. Doubters, sceptics, and medical gentlemen, read, mark, learn, and inwardly digest, these extraordinary facts. if those were the only facts where change of form have taken place we should have said but little, or have been silent on the occasion; but we are in possession of one hundred and two casts, taken at all periods of life, from eight to eighty years of age; amongst them several cases of an extraordinary nature, where propensities having been controlled, the heads in the parts corresponding have got less; and three or four cases where some of the higher sentiments have ceased to act, and the head has got less in the parts, according with the change; clearly demonstrating that a change of form of the skull takes place by absorption and deposition with the working of the brain. Hence the importance of Phrenology, in enabling us to give proper directions to the faculties, so as to inculcate true principles of morality, by exciting respect for the moral laws, and obedience to the positive laws.

What is your deduction from these principles of morality? We conclude, from these principles, that all the social virtues consist in the performance of actions useful both to society and to the individual; that they may be increased by moral direction; that they may be all traced to the physical object of the preservation of man; that Nature, having implanted in our bosoms the necessity of this preservation, imposes all the consequences arising from it as a law, and prohibits as a crime whatever counteracts the operation of this principle; and, moreover, that we are happy in exact proportion to the obedience we yield to those laws which Nature has established with a view to our happiness and preservation, the law of Nature being the regular and constant order of events according to which God rules the universe.

Then, from what has come within your notice, are you of opinion that we have the power to alter our development, and thereby produce beneficial alterations in our character?

Certainly, that is our opinion, based upon proofs of facts, wherein is shown that alterations have been produced that will create a difficulty of any reaction of the faculties; or, more properly speaking, the power of going onward in that altered state will become more easy to accomplish.

INTRODUCTION.

This book and the bust accompanying it are offered to the actice of those who wish to take a short view of the science; but those who feel a desire to enter into a philosophical inquiry, and to become practical Phrenologists, must direct their attention to a collection of facts from casts easily obtained for the purpose.

To give some facility in the first observations, we have made some additions to our small book, keeping the whole in as condensed a form as the nature of the subject would admit. To bring the same within a moderate expense—to render it plain and easily understood to beginners—to make deductions from facts in our collection well known and referrible to—and to avoid speculative inferences—have been considerations we have endeavoured to attend to.

In studying the science, some general principles are necessary to attend to in the early consideration of the manifestations of the organs. With the view of giving some facility, we have given figures, to show that a great difference of form exists between individuals acting under the influence of the moral feelings and others acting under the influence of the animal propensities—Indians manifesting great cruelty and others capable of entertaining superior feelings—of the frontal sinus at times found at Form, Individuality, Size, Weight, Colour, and Locality—of a muscle observed at times (but very seldom) on the

side of the head, when so, producing some difficulty in making observations on the organs of Secretiveness, Acquisitiveness, and Constructiveness—of a philosopher and an idiot, illustrative of a great mind and the reverse—also of singularly-long and flat-shaped skulls, to show great difference of forms exists—moreover, we have given a set of figures, to show a change of form in the same individual, from a deterioration, owing to a neglect of education, to an increase, produced by education and moral direction—also, feeling, by a study of the science, great facilities will be given to preceptors, and those having the care of youth, to invite inquiry, figures, with some observations, will be found, which, if attended to, we consider will assist to point out some of the difficulties at present experienced in education.

As the situations of the various organs will often, to those who take a view of the science, come under consideration, we beg attention to their arrangement, which must impress feelings of admiration at the beautiful order in which Nature has placed them, and at the perseverance and research made in the discovery of their situations, as determined by Drs. Gall and Spurzheim.

It must strike those who take a view of the science at what has been done, opposed as it has been, when it is known that we have in our collection, independent of others, upwards of two thousand two hundred casts from nature, of known characters, well authenticated, and without a single instance of contradiction; and are enabled to prove the thirty-five organs, as established, not by two or three examples, but, the greater number of the organs, by two or three hundred specimens: moreover, upwards of four thousand skulls of animals have been

added to the collection, which also bear out the truths of the science.

This, to some, at a first glance, may appear incredible; but those having any doubt may see and judge for them-selves.

The importance of the science is, by numbers, particularly by those who will take the trouble to investigate the facts collected, beginning to be duly appreciated; and, from a great number of circumstances that have come within our notice, we are impressed with a feeling, that it will be found of more importance than at a first glance appears, by giving great facilities to the proper direction of the faculties, and in the application of them to education and for professions.

Another point to attend to is, many persons, after taking a view of the collection, and admitting the truths of the science, make an objection, namely, that they differ with the Phrenologists in the minutiæ of the organs; and have entertained an idea, that they maintain that heads have thirty-five organs, all largely developed. Those who will take the trouble to inquire, and investigate what the Phrenologists have done and are doing, when they predicate actions and speak on character from development, will find that is not the case.

We go further, for the immense number of facts collected prove it, that every head, except idiots, has the thirty-five organs; but we do not attempt to say they are all largely developed and active in one individual; but by observations on a few persons, every organ in one or the other will be found fully developed (that is in a few individuals); and those who will pay attention to the manner a practical Phrenologist proceeds when speaking of actions, will find that he does not attempt to point out or give more than from five to nine or ten prominent points of character, except in very extraordinary cases: hence the Phrenologist does not attempt to give more than so many prominent parts of the head, the rest being small and moderately developed, taking the same part in the character as their size and activity manifests.

We recommend to those studying the science to collect facts upon them to reason, and not to be satisfied with reasoning alone; for upon facts they may take their stand with some chance of success: but by reasoning first they may fall into an error, not easy at times successfully to retract. This may be avoided in the early consideration of the science, by proper attention to the fundamental powers of the organs, and carefully attending to the manifestations of their degrees of activity, previous to speaking of their actions, which it will be well not to attempt until a knowledge of the different degrees of activity is attained; for when actions of the organs are spoken of, and character is predicated, it is not by a single organ, but under combinations and modifications of and with other organs; also, as they may be influenced by the greater or lesser proportions of the anterior and posterior regions, and the quantity more or less in the base or upper part of the head: observations if attended to, it will not be found difficult to speak of or predicate actions of the organs, or draw conclusions on heads, skulls, &c.

A study of the mind and man is considered by many persons as of modern introduction: that is not the case; for history points out that the philosophy of man is of very anterior date. Thales, in his discourses, stated that a cultivated mind, and a study of the philosophy of man,

are the chief sources of happiness, and advises the taking of more pains to correct the blemishes of the mind than of the face. Carneades, Anaxagoras, and Socrates, pursued the same studies. The latter, according to Cicero, was the first who called down Philosophy from heaven to earth, and introduced her into the public walks of life, and into the domestic retirements of men, that she might instruct them concerning life, manners, and the truth of Nature.

There are a vast number of ancient and modern philosophers to be traced who have made mind and man their study, but in a general way; but none have succeeded to point out the actual seats of direct primitive functions of the mind, as Drs. Gall and Spurzheim have done.

There are some persons who, from not having time, others from inclination, still speak with doubt on the science; but few now rail at it. Our advice is, do as we have done; search diligently, and collect facts, and if they do not find as we have, then deal out the tainted arrow, or disbelieving sneer, as self-conviction can only be founded on self-observation: for unless strong facts are produced against it, all opposition must prove feeble and weak; and the opposers, without facts to support them, will ultimately find themselves weak in their arguments, if not so in their intellectual mansions.

MANUAL

OT

PHRENOLOGY.

&c.

PHRENOLOGY is a system of Philosophy of the Human Mind, and is founded on facts ascertainable by consciousness and observation.

It is a principle of Physiology which cannot be disputed, that dissection alone can give us no information concerning the functions of the bodily organs: no anatomist, by dissecting the optic nerve, could predicate that its function is to minister to vision; or, by dissecting the tongue, could discover that it is the organ of taste. In the same way anatomists, in dissecting the brain, cannot discover the functions of that organ.

Metaphysicians also, having confined themselves chiefly to reflection on Consciousness, could not discover the organs of the mind. On the other hand, *Phrenologists*, have endeavoured to avoid the obstacles presented by these, modes of philosophizing, and have compared manifestations of mind with development of brain, in an immense number of mindividuals. The system now offered to notice, and to which attention is directed, is the result of observations thus made; and the principal points which are

conceived to be established, by extensive observation and induction, are the following:—

1st. That the brain is the material instrument by means of which the mind carries on intercourse with the external world.

2d. That the brain is an aggregate of parts, each of which has a special and determinate function.

3d. That the form of the brain can be ascertained by inspecting the cranium; and that the functions of the several parts may be determined by comparing their size with the power of manifesting the mental faculties.

4th. That character, moral, intellectual, or sensual, will not be manifested without corresponding development of the brain.

In making observations on the manifestations of the cerebral parts, with a view of drawing deductions therefrom, there are some points requisite to take into consideration, namely, to consider the relative proportions of one part of the head to the other, particularly in the parts before and behind the line drawn from the orifice of the ear to the top of the head, named by Dr. Spurzheim the anterior and posterior, or the frontal and occipital regions; also in the proportions of the base and upper regions of the brain, as shown in the annexed figures.

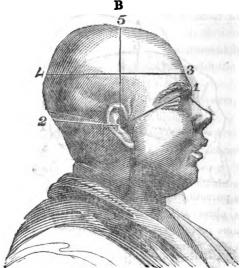
By a reference to the figure A, also to the line as drawn from the orifice of the ear to the top of the head, observing the proportions before and behind the line, also the proportions above and under the lines marked 1, 2, and 3, 4, it is manifest the greater proportion is before the line, from the orifice of the ear to 5: hence it is inferable that the individual so organized will act under the influence of the superior feelings and sentiments, and form one of the respectable part of society.



This is the case with the whole of the casts we have of this class of individuals, being near eleven hundred, from living persons, some from the humble, but the greater proportion from the middle and upper, walks of society.

By reference to the figure B, observing the same rules by the same numbers, also the proportions in the same manner, it will be manifest the greater proportion is the reverse of the other, being behind the perpendicular line. Individuals so organized will be found to act under the influence of the lower feelings and animal propensities. The casts of the criminals, being upwards of 200, we have in the collection have all this description of organization.

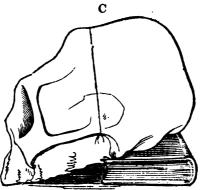
In making observations, as here pointed out, and in making deductions, it is not to be inferred, in the case of



finding individuals thus organized, that they will, from natural inclination, destroy fellow man; but one thing will be found, that if, from pecuniary difficulties, supposed injuries, or other adventitious causes, the passions become raised, or provocation takes place in any way touching them personally, the consequences will be unpleasant, if not hazardous, to those who irritate or oppose them while in such a state. They lose the better part of man, and their feelings say,—

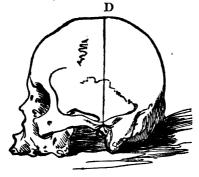
"Tempt not my swelling rage
With black reproaches, scorn, and provocation."

In pursuing our inquiry into the character of the national examples of skulls, where we obtain them authentic, the truth of the doctrines is most singulary borne out. We have now in the collection about four hundred of this class.



In thus pursuing our inquiry into the national variety, as before observed, it is curious to see the different manifestions of the cerebral parts of the organizations. The preceding figure c is taken from the skull of a Carib (mentioned by many travellers as the cruellest race). It is borne out, as will be observed, by the great portion behind the line drawn from the orifice of the ear to the top of the head, and by the small proportion before.

By attending to the same rules, and observing the proportion before the line in the figure p, there is a good proportion before. This figure is taken from the skull of an American Indian, whose character is known to be far



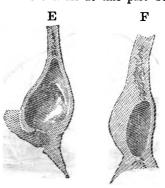
superior to the Carib, manifesting very superior mind and talent to the other. Here we find a good portion of the brain before, to reason and carry on operations with, which bears out the science in the same manner.

In thus tracing the character of the various national examples, it becomes an extremely interesting inquiry, most beautifully illustrating the theory, and the great variety in the works of Nature.

Another point requisite to pay attention to is the frontal sinus, but which is seldom found so large as to prevent Phrenological observations. The organs that it most interferes with, and which should be taken into consideration in drawing conclusions, are Form, Size, Weight, and the lower part of Individuality. This has been considered to present a difficulty, but not of that magnitude which the anti-Phrenologists have represented; the observations daily made on those organs proving it otherwise.

To give some idea of the frontal sinus, we here give two cuts, E and F, which represent parts of the skull, just above the bridge of the nose to the lower part of Eventuality.

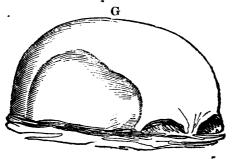
Figure E is taken from one having a large frontal sinus; the two tables of the skull at this part being separated



gives a full appearance. Were this to be often the case, difficulties to the same extent would certainly exist; but it is seldom found so. We have examined many hundreds of skulls, and found very few: even then some allowance may be made, and the deductions therefrom accurate, by those who have given the science a little study.

Figure r is a different kind of frontal sinus; the bone in front of it appears much thicker, and not so high up: we have found some like this on examining the skulls of old persons. This would not interfere to any extent in Phrenological observations; but in all cases it will be well to make a little allowance, supposing a small frontal sinus to exist.

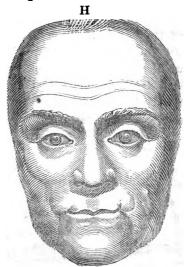
It is also requisite to attend to the temporal ridges on the sides of the head, there being at times a muscle that extends along from the anterior part of Acquisitiveness to the posterior part of Secretiveness, at times taking in part of Ideality and Cautiousness. When this is supposed to exist, the eye must not be entirely depended upon, but the parts must be carefully felt. Persons inclined to be lusty are the individuals who are most likely to have the muscle large, and which require care when making observations on the cerebral parts.



The figure of represents the muscle on the side of the skull, which can only be observed by the feel. This is taken from a cast in our collection, with the muscle on one side and taken off on the other.

These particulars attended to will give facilities in the inferences drawn on the manifestations of the cerebral parts of the organization.

The two next cuts show the great difference between the configuration of the forehead of a great mind, and that of a natural-born idiot. The one marked H is taken from a mask of Dr. Benjamin Franklin, whose talents as a statesman and philosopher were well known, which is borne out in the figure and busts of him.





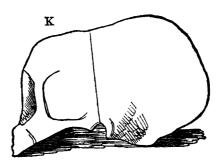
The other cut, marked I, is from a cast taken from a natural-born idiot, a native of Amsterdam, taken in the thirty-fourth year of his age.



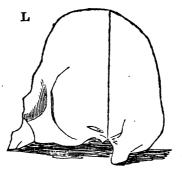
This wants no description to point it out; any one at a reglance will see the same. Between these two extremes the great varieties of character we meet with are found. Certain it is, we do not often meet with a Franklin or an idiot.

Many persons, looking at the busts of Franklin and the idiot, have said, any one may see that is the bust of a great mind, when looking at the former, and that is an idiot when looking at the latter; but, upon inquiry why they thought them so, have not been able to explain: that appears to be left to the Phrenologist to point out.

The two next cuts, κ and L, are introduced to show that a great difference of form exists, and that great difference in the character also is to be found. The one marked κ is taken from the skull of a Celt, and is very remarkable for its length and flat shape.



The other, marked L, is taken from the skull of a German, remarkable for its singular flat shape and height.



These are introduced, like the figures H and I, to show that great difference of form exists, being two of the extremes. It should also be observed, that they are not shown as specimens of the nations to which they have belonged, but for the extremes of difference in the shapes. Various kinds of character may exist under these extremes of shape, according as the proportions may be found in the anterior and posterior regions of the head. We have some in the collection from living persons, of highly

respectable characters, not much unlike these, but having in both shapes the greater proportion before the line.

One thing may be observed in meeting with individuals thus organized: if we met with individuals of either shape, having the greater proportion behind the line, as shown in figure K, we must acknowledge we should not like to live under their government; they would be summary, show a want of good feeling, and require the assistance of the laws to hold them in obedience: while, on the other hand, if either of them had the greater proportion before, as shewn in figure L, no such fear need be entertained, neither would such caution be required. In making observations on casts of individuals thus organized a little more care is requisite than in ordinary cases.

In addition to these observations, the constitutions and the temperaments must not be overlooked. Dr. Spurzheim, in his late work on character, points them out as essentially necessary to be attended to: there are four kinds, namely,—the Lymphatic, or Phlegmatic,—the Sanguine,—the Bilious,—and the Nervous.

Those partaking of the Lymphatic indicate slowness and weakness in the vegetative, affective, and intellectual functions; those of the sanguine are easily affected by external impressions, and possess greater energy than those of the former; those of the bilious manifest great general activity and functional energy; those of the nervous, rapidity in the muscular actions, vivacity in the sensations, and exhibit great nervous sensibility.

PROPENSITIES.

Order 1st.—The affective Faculties, or Propensities.

THE first nine organs are considered as affective faculties or propensities, are common to man and animal, and are as follow: Amativeness; Philoprogenitiveness; Inhabitiveness, or (Concentrativeness); Adhesiveness; Combativeness; Destructiveness; Secretiveness; Acquisitiveness; and Constructiveness.

To facilitate an inquiry into the functions and actions of these organs, is it not important to distinguish what is their development as affective faculties, and what as propensities?

Certainly; it is of great importance to know whether they are acting as affective faculties or as propensities, as the former, they produce only desires, inclinations, or instincts; but the name propensity is applied to internal impulses, which invite to certain actions. It is therefore highly requisite to inquire into their tendency as affective faculties and as propensities.

What is their tendency as affective faculties?

As affective faculties they should be considered as desires, thereby producing some of the finest affections, which may be classed under four heads, viz.;—the social affections, which arises from the perception or the persuasion of amiable qualities, personal or mental, for which a strong predeliction is formed, as in the conjugal relations;—the filial affections, being a conviction of a sense of perpetual cares and acts of kindness;—the fraternal affections, which owe much of their strength

to the closest habits of intimacy, the perception of one common interest, and an impressive sense of the inestimable value of domestic harmony;—and, the friendly affections, which inspire by the contemplations of pleasing qualities and the perception of a similarity in disposition, being always cherished by reciprocal acts of kindness. Hence the importance of an inquiry into the tendency of the social affections, it being under those feelings, that the little plans in the humble walks of life and society, previous to marriage, are carried on by concert; and small communities are kept together by the tie of sociability and reciprocal love, exhibiting one of the most beautiful pictures in human nature, which says, with Pope,—

"Let mutual joys our mutual trust combine, And love and love-born confidence be thine."

Moreover, when acting under the influence of the affective faculties, the mind dwells upon the accomplishments which have inspired the affections, recals the scenes of pleasure past, anticipates those which are to come, and, in the expressions of those feelings, it purposely prolongs the phraseology which best prolongs the fascinating idea. Such will be the actions of those organs when in combination with a full development of the moral sentiments, being most particularly observable when a passion or a strong affection is not raised suddenly, but is produced by deliberation or meditation upon the subject.

Having described their tendency as affective faculties, will it not be desirable to inquire into their tendency as propensities, with their effects, and how they may be controlled?

Certainly, it will be desirable; for as propensities they may act from internal impulse, which invite to certain actions; and as passions give place to more permanent affections, and with a moderate development of the moral sentiments, they will act under the influence of resentment, when every species of aggravation is deliberately dwelt upon, every thing in the conduct of the aggressor which may augment his apparent culpability, and every part of his demeanour is brought forward to manifest the greatness of the offence; and therefore it is of the utmost importance to endeavour to hold them in check or abeyance to the moral sentiments.

Then it appears of importance to know their tendency as propensities. Will it not also be desirable to be able to ascertain with certainty their practical tendency as affective faculties, or as propensities, and to point out the impropriety of suffering them as the latter to be our guides?

An inquiry into the practical tendency of the propensities, the final causes and usefulness of our being endowed with them as affective faculties, and the irregularities, confusion, and misery, consequent upon their development as propensities, will clearly evince the truth of a position advanced, that the passions or propensities, considered in themselves, are not calculated to be our guides and directors in our pursuits after well-being: for although there may be a pleasing and apparent highly beneficial diversity in the indulgence of some of the propensities of human nature, occasioned by incidental circumstances, yet the legitimate influences of such circumstances are and must be very circumscribed. Were we in every case to listen to the suggestions of the propensities alone, they would very frequently lead us into a course directly opposite to that of happiness—they would plunge us into every extravagance, and be the means of exposing us to every calamity.

It appears that mankind will be liable to many errors if governed by the propensities—will it not be important to have their development pointed out to us, so that we should in ourselves be aware of their state of activity, that the consequences and calamities they tend to may be avoided?

It certainly becomes a most important question to ascertain whether we be destined, by the constitution of our nature, to be incessantly exposed to unhappiness, and to be agitated by evil and pernicious passions, without suitable means to oppose them? Are we thus to be driven into every danger by their impetuosity, without a compass to point out where we are going, or a pilot to direct our course? If this were the immutable destination of man, we should inevitably suffer greater calamities than those to which inferior natures are exposed. In fact, no one ever seriously supposed it to be the destination of man, that he should be solely governed by his propensities. The most ignorant will sometimes perceive that human beings possess rules of action, by attention to which they are able to avoid many calamities. Hence the importance of a knowledge of the state of a development of the propensities.

From those observations, does it not appear, that those acting under the influence of the propensities are aware of doing wrong; that they are the objects of folly and tormenting passions; and that they are also aware that it is to the moral sentiments they must appeal to, as their guides and directors over the propensities?

Those who yield the reins to their impetuous passions will often acknowledge that they are doing wrong—that they are inconsiderate—that they are acting unwisely and without reflection. When we behold others, the sport of

folly or of tormenting passions, we all unite in the accusation that they are acting irrationally—that they violate the dictates of their own understanding—that they are opposed to their better judgment. To powers of a superior nature, the high moral sentiments, we look for control over the propensities and passions: they are destined to guide the legitimate passions and affections into the right course, and to control every propensity that is irregular and pernicious. It is to the moral sentiments we look forward to as guides in the pursuit after our well-being.

Then from what is ascertained of their actions as propensities, it will be desirable to direct them as affective faculties; and that a thorough knowledge of their functions is of the utmost importance, thereby to enable us to govern and hold in command the propensities with a proper observance of, and obedience to, the organic and natural laws?

"The faculties of our mind," says Dr. Reid, "are the tools and engines we must use in every disquisition; and the better we understand their nature and force, the more successfully we shall be able to control and apply them." This is borne out by a vast number of facts that have come within our own knowledge, but more particularly from casts in our own possession, of individuals who have had them taken at different periods; when, from perceiving by the first cast that the propensities were in too great a proportion, when compared with the moral sentiments, advice was given and acted upon, and a total change of character took place of a high moral improvement; when compared with upon taking the second casts, four, five, and six years after, a corresponding change had

taken place in the form of the head at the coronal region, (i. e. the moral sentiments,) which was found to be much larger, and in several cases the lower propensities had got much less. The casts here alluded to were all taken after twenty-eight years of age. This, to some of our readers, may appear strange; but such is the case—and facts are stubborn arguments, and most fully illustrate, that, by proper obeisance to the organic and natural laws by the aid of Phrenology, great changes can be produced, even at late periods of life, in the organization of man: hence a knowledge of the state of the propensities must be highly useful. Moreover, it imposes a moral duty upon mankind, when it is ascertained that he has the means (to a certain extent), by divine aid, to alter his present character, namely, to cease to act under the influence of the propensities.

The first nine faculties give merely desire, and may be properly called propensities, and are as follow:—1, Amativeness; 2, Philoprogenitiveness; 3, Inhabitiveness or Concentrativeness; 4, Adhesiveness; 5, Combativeness; 6, Destructiveness; 7, Secretiveness; 8, Acquisitiveness; and 9, Constructiveness.

1. Amativeness, the propensity for the propagation and preservation of the species.

This propensity, when fully developed, is one which takes a very active part in society, and in the general character of man. It is in man, and in animals in general, largely developed. Nature seems thus to have fully endowed man and animals with this organ for the noblest of purposes—

that of strengthening sexual attachments, and the multiplication of the different species.

When fully developed, in combination with the mora sentiments and Adhesiveness large, it leads to the strongest mutual affections. Under these feelings the little plans in the humble walks of society, previous to marriage, are carried on by concert; and small communities are kept together by the tie of sociability and reciprocal love. The history of some of the South Sea islands, which the voyages of discovery have tended to disclose, enables us to glance at society in some of its earlier forms, and to mark, in some striking examples, the inviolable fidelity of social love, and the results of the manifestation of these organs. If to the above, Philoprogenitiveness and Inhabitiveness be also fully developed, it leads to an exclusive and indissoluble union; and the sweets of domestic life make ample amends for its more severe engagements*. To man, love is the source of many other social enjoyments and important advantages-love, or a strong affection, for a particular woman, is, to young men, one of the greatest incentives to virtue and propriety of conduct.

A young man in love thinks that the eyes of his favourite continually behold him; through this amiable medium he views all his actions, and even his thoughts. His affections are so great, that he, in some measure, is deterred from regarding any other woman, and, what is of more importance, from indulging in any loose or irregular habits. The dispositions of the female are the same with those of

^{*} Repetition of marriage appears to us the result of this combination. We have several casts of individuals in the collection who have married a second, a third, and even a fourth time, all of which have these organs very largely developed.

the male; her attention is completely engrossed, and she seldom thinks of any but of him who is the object of her affections.

"For sure of all the pangs that lovers feel,
The worst with thee, solicitude, was born;
To love, and yet not dare that love reveal,
Or, if reveal'd, to dread a killing scorn."

A young man and woman in love exhibit one of the most amiable pictures in human nature: such is the result of this faculty, when fully developed, that it forcibly reminds us of the following lines from Pope,—

"Let mutual joys our mutual trust combine,
And love and love-born confidence be thine."

Individuals having this organ small are very sparing in their observations on affection or love, and in their attentions to female society, which they avoid as much as possible. When found in combination with the other propensities altogether large, and the sentiments and reflecting faculties small, it leads to many unpleasant occurrences. Many of the casts of criminals in the collection are striking illustrations of such organization.

This faculty is situated at the lower posterior part of the head, and when large gives a fulness to that part between the mastoid processes and the occipital bone, that portion of the brain called the cerebellum is the seat of it.

In making observations upon it, care must be taken that the thickness of the neck be allowed for; also the mastoid processes and the occipital protuberance.

2. Philoprogenitiveness, the propensity for the protection of the young.

This propensity signifies the love of offspring generally; and, when large, it gives a drooping appearance to the back part of the head.

This organ is found much more developed in females than in males; it is by the excitement and activity of it that the tender care shewn to offspring is strongly manifested. Females having it large, with Benevolence and Adhesiveness also fully developed, upon separation from their offspring, or children they have had under their care for a time, express much uneasiness: some, upon separation by death, or otherwise, bewail their loss almost to derangement*.

When this organ is very small, individuals so organised are much annoyed by the presence or company of children, taking much pains to avoid them; and, at times, even expressing dislike to live in a house where there are any; and if Benevolence is moderate, with the propensities largely developed, they manifest indifference with unkindness of feeling towards them,—at times punishing them severely for slight offences. The cases of infanticide proceed from such developments: thirty examined by Drs. Gall and Spurzheim were found so.

Those having this organ and Benevolence large, with the moral sentiments fully developed, express much anxiety for the welfare of children, and are strongly attached to them, taking much pains to seek proper objects for their amusement and instruction, feeling gratification when they are enabled to do so. If Gaiety be fully developed with the above, it gives a disposition to playfulness. Indi-

^{*}A remarkable instance of this took place in a female (a case of bigamy): upon being separated from her children she became deranged. On taking the cast of her head, we found the organ much warmer than any other part of the head; the pomatum, used to lay down the hair, ran off like oil, while the rest of the head remained moderate. Nesbett, while in prison, expressed great anxiety for the future welfare of his children, imploring protection from them of every person he saw. Both these have the organ very large.

viduals so organised will soon be discovered in their visits to families, as children quickly flock around them.

It is a faculty that is in general largely developed in most nations; even the Caribean Indians, the most brutal of the Indian tribes, exhibit great attachment to their children. How different the character of the American Indian in this particular. Adair and Hunter, who have written largely on the Indian nations, (and other travellers have confirmed their accounts,) state that numbers of their children die for the want of common parental care. The casts of the Caribs have the organ very large, the others very small.

This faculty is very largely developed in many species of animals.

3. Inhabitiveness, the propensity to inhabit, or attachment to place.

It is situated at the back part of the head, between Philoprogenitiveness and Self-esteem.

Some difference of opinion has been entertained respecting the fundamental power of this organ. In the observations made by Dr. Spurzheim on it, he was led to believe its functions to be in animals a desire of inhabiting determinate places. It is a circumstance known of him, that he could distinguish the different species of grouse by merely looking at the back part of the skulls of them: he could pick out the ptarmigan from amongst the skulls of red grouse and partridges. From observations, he showed it to be large in those animals, and in persons attached to particular places, and who dislike change of residence. Others call it Concentrativeness. Concentration of thought, or maintenance of powers by peculiar application, appear to us to belong to the intellectual faculties.

The situation chosen for such, if a fundamental power, being among the propensities, presents a difficulty in the part chosen. One of the great beauties of Phrenology appears to us in the arrangement as now made of the propensities, sentiments, and the rest of the fundamental powers.

Moreover, we have taken the pains to make a large collection of casts to satisfy ourselves, with a view of coming to more proper conclusions: amongst which we have some who have no power of concentration, not even of holding a second idea in view, but they have the organ very large; and what is equally remarkable, as evincing their attachment to place, one of them sold his house, and bought it again twice, not liking to leave it. We have others, whose power of concentration, and also of maintaining two or more powers in simultaneous and combined activity, so that they may be directed towards one object, are known to be great; and it is equally remarkable, they have the organ moderate. One of those having it small. on inquiring how his feelings were, and explaining our opinion of its functions when large being the attachment to place, expressed astonishment that any one should be found with such a propensity of strong love to place.

The result of our inquiry is, that Inhabitiveness is the more proper name of the organ. Considering, when a difference of opinion exists regarding the functions of an organ, conclusions should not be drawn from a few examples; we, therefore, have taken a great number of casts for the purpose, (having upwards of a hundred and fifty examples of this organ,) most amply satisfying our mind. Many of them are very singular illustrations; but the whole that have it largely developed feel strong attachment to the place they have resided in, leaving the

same, or places where they have been for a while, with reluctance*. Some, having sold or let their residences, purchased them again, not liking to quit or give them up, having such strong attachments to them.

We took the casts of three seamen, remarkable for their abilities as such, and for their powers of going in difficult and dangerous parts of the rigging, keeping their balance when in dangerous situations, to the astonishment of those around them. Two of them have the organ very large, the other has it moderate: the two having it large are so attached to their ships, that they declined promotion, one as a captain, the other as mate, for a voyage to the South Seas (which takes from twenty-four months to three years), to wait for similar situations in the ships they had been in for several voyages-(a ship is a seaman's residence). Both of these individuals feel a strong desire to die at their native homes; or, if enabled, as they stated, to quit the sea, they should certainly settle there. The other, who has the organ moderately developed, feels no desire whatever for a particular ship or residence, stating it was of little consequence to him what ship he was in, or went in, so that he was comfortable, not having any desire connected with his native home like the others.

We have also several casts of individuals who are not able to go up a ladder; others who cannot stand upon a pair of low steps; and some who turn giddy if they look over a precipice; several even in looking over a staircase

^{*} We have casts of individuals who feel great reluctance in changing their apartments, or even their bed-rooms; and who put up with inconveniences rather than change: in all we find the organ large. On examining near thirty skulls of cats (we have), the part pointed out by Doctor Spurzheim as Inhabitiveness is large in them all.

become giddy and lose their balance*; all of which have the organ large, and who are most singularly attached to place, some of them to a high degree. In fact, the whole of those we have spoken of, being upwards of one hundred and fifty, (any of which, with the particulars of them, may be seen and known,) are attached to native home, place of residence, or any place they have resided in for a time. leaving it with great reluctance; some even at leaving every place they have been in only for a few days. One very singular instance of this kind is in a gentleman who has a strong desire for travelling: be began at eight years of age, has been six times at Canton, and over most parts of Europe. Upon finding, in the cast of his head, the organ of Inhabitiveness very large, we felt it as a contradiction to so strong a manifestation for travelling; but, upon inquiry, he stated that a desire to finish his days at his native home, gave him, with his desire for travelling, much uneasiness; that he always left a place where he had rested a few days, or lived for a while, with great reluctance. Hence, we have no hesitation in our own minds that the proper name of the organ, No. 3, is Inhabitiveness, the number of casts before mentioned fully illustrating the same; and no doubt we shall find many more when we finish our catalogue, exclusive of an immense number of observations made and measurements taken. But casts taken from individuals that can be referred to is the preferable mode of proving the functions of any organ with satisfaction; this we have done to a great extent, having upwards of thirteen hundred known



^{*} It has been stated by some, that this organ gave, as Concentrativeness, the power of balancing in difficult situations; but we consider that power to belong to the perceptive faculties.

and authenticated casts from Nature, above half of them being from well-known living characters.

We have taken the casts of three skulls of the wandering Esquimaux, brought to England by Captain Parry, Lieutenant Manico, and Lieutenant Kendall: in all three the organ of Inhabitiveness is small; also in some roving Tartars, and South Sea Islanders, added to the collection.

4. Adhesiveness, the propensity for attachment and friendship.

This propensity is common to man and animals; it is situated at the posterior part of the head, by the side of Inhabitiveness, and over part of Combativeness. When large, it gives a round appearance to that part of the head.

From the immense number of casts we have were the organ is large, no doubt remains of its being fully established, and that Adhesiveness or Attachment denotes this special faculty, which presents several modifications; the objects of which are friendship, marriage, society, and attachment in general.

There are great numbers of animals that herd together, form attachments, and live in society, as the wild horse, ostrich, elephant, sheep, goats, starlings, crows, and many others. By a reference to the depths of the ocean we see the chain in Nature moving the same; the inhabitants of that vast portion of the globe associate in shoals from the whale to the minnow. We also find men, in their ruder state, herding together. A reference to the various tribes in the East Indies, the North American Indians, New Hollanders, Esquimaux, and many others, are found associating together in the same manner. But why thus mingling together? Few who have written on the various

tribes have ventured to treat the supposed causes of it otherwise than theoretically: it seems to be left to Phrenology to come nearest, and to point out the cause of those attachments: hence it appears, that the instinct of being attached to life, and that of living in society, are not mere degrees of energy; -a lower degree produces attachment to society, a higher degree through life, there being animals who live in society without being attached for life; others are again attached for life without living in society. instinct, therefore, of living in society, and that of living in family, are modifications of their proper nature, in the same way as smell and taste are modified in carnivorous and herbivorous animals. Man belongs to that class of animals which are social and attached through life; and hence it results, that society and marriage are not at all the effects of human reflection, but of original nature. seems that this special faculty extends its sphere of activity still farther, and gives attachment to all around us.to inanimate beings, plants, animals, and man; in short, to all we possess, animate or inaminate.

One of the special faculties of this organ is friendship, and society in general; it is particularly conspicuous in the inhabitants of mountainous countries. In the Highlands of Scotland, it is the principal stimulus to the forming of their clans; it produces friendly attachment, and is considered to be much stronger in woman than in men. It is one of the main sources of friendship and society in general: when large, with Amativeness and Philoprogenitiveness, it prompts to early marriage.

Amongst the skulls of animals in the collection we find many have this organ large,—the magpies, jays, crows, rooks, wood-pigeons, horses, foxes, and dogs,—some dogs are attached to their masters against all interest, notwithstanding the bad treatment they receive, while others are not susceptible of this inclination.

5. Combativeness, the propensity to combat—to defend.

This organ is situated at the posterior part of the head, behind the mastoid process. This is one of the organs upon the functions of which much mistaken opinion has existed, it being thought by many that, when very large, it leads those so developed to be quarrelsome; but which is not always so, its functions being more to contend, defend, and carry the objects of life onward. This faculty, when largely developed, in combination with the superior sentiments also large, gives power and energy to undertake difficulties, and is one of the noblest attributes of a manly character. It enables the senator, the barrister, and those situated in public life, to contend for the object they have in view or submitted to their care.

Those having this organ very large, and Cautiousness moderate, will be passionate, at times violent; but if Benevolence be fully developed, it will be of short duration, being by it quickly restrained, particularly if in combination with the greater proportion before the line drawn from meatus to the top of the head. If to this be added a large Firmness and Self-esteem, the contentions for self-opinion will be warmly maintained; and as Conscientiousness may be more or less developed, so will the justice of the object under consideration be supported—Combativeness giving the feelings to contend, while Conscientiousness dictates to do it with justice. If Destructiveness be also large, it will assist and strengthen the powers of contention and determination.

If this organ be very large, in combination with the larger proportion of animal propensities, and the greater proportion of the brain behind the line drawn from meatus to the top of the head, Conscientiousness and the reflecting faculties also moderately developed, it then, under disappointment, or strong excitement, manifests violence and determined courage; and if Cautiousness be also moderately developed, then it acts without consideration of the consequences that may follow.

When this faculty is small, and the superior sentiments large, with the greater relative proportion before the line from meatus to the crown of the head, it gives feelings of diffidence, always avoiding contentions. Persons so organized seem to want energy to go through the common occurrences of life.

Among the casts in the collection, we know of only two having the organ small, the rest having it full and large.

Dr. Spurzheim states this propensity as active, in different degrees, not only in mankind, but also in different species of animals. There are animals who never fight, while others are fond of it; rabbits, for instance, are more courageous than hares. Even individuals of the same kind differ entirely with respect to this faculty, thus one dog looks incessantly for an opportunity of fighting, while another always runs away. The courageous animals have the head between and behind the ears very large. This is an unfailing sign to distinguish or recognise if a horse be shy and timid, or bold and sure. The same difference is observed in game-coeks and game-hens, in comparison with domestic fowls. Horse-jockeys, and those who are fond of fighting-cocks, have long made this observation.

By some, this propensity is considered as the result of bodily strength. There are some species which, though weak, are fond of fighting; while others, though large and strong, avoid it. Among men, and even among delicate women, we find individuals who are weak, but intrepid and courageous; while tall and robust individuals are sometimes destitute of this propensity.

We have taken the cast recently of a skull of an individual who died through fear of an operation, in taking off a small tumour in the operator's room, while preparing for it, in which we find this organ the smallest of any one coming within our notice, in combination with a moderate Hope and large Cautiousness. We have also taken the cast of a young man having Combativeness small, (not quite so much as the skull,) Cautiousness large, and a moderate Hope, who is perpetually annoyed by fear; also causing much anxiety to his family by the manifestation of fear, hesitation, and timidity, developed by him. This combination always produces doubts, hesitation, fear, hypochondria, &c.

The casts of the primitive Chinese have this organ moderately developed, and Cautiousness large; while those of the Chinese Tartars, their conquerors, have Combativeness large and Cautiousness moderate. In fact, we have such an immense number of known facts in illustration of this and the whole of the organs, that to give a description would, take volumes, having in our own collection now apwards of sixty thousand individual facts, exclusive of the animals' skulls.

6. Destructiveness, the propensity to destroy.

This organ is situated above and round the upper part

of the ear. When largely developed it gives a fulness to that part; at times, it occasions the upper part of the ear to project outwards.

This organ, like that of Combativeness, from the name given it by Dr. Gall in his early publications, has given rise to many ridiculous observations. He having found it large in the heads of some criminals executed for murder, in the early part of the study of the science, called it the organ of murder, taking his data from murderers alone. The casts we have of those executed for that crime bear his observations out. It was natural to suppose the feelings that would be excited when the most amiable and pious discovered that they, as well as the most abandoned, had the organ of Destructiveness equally large. The fact is so; for in the collection very few have this organ small; all the rest having it large.

At the early period of taking casts, very few had the whole of the head taken, except criminals, or some casts taken from skulls of Indians and nationals; most of the casts that were taken from living persons being masks only: it was therefore impossible to take that view of character at the time the former or earlier names were given to many of the faculties, as the numerous collections of casts of character known now enable us to do, and to judge of the combinations of the various faculties; for it should be observed, that the faculties at the posterior part of the head take a very active part in the controlling or carrying onward nearly the whole of the other organs, and none more than that of Destructiveness and Combativeness; the latter giving the power to contend and carry onward the object, while the former determines and carries it into execution. And this, in our opinion,

to a much greater extent with the major part of the faculties.

It is also requisite, as before observed, particularly with Destructiveness, to observe the relative proportion before and behind the line from *meatus* to the crown of the head; for it is a curious fact, to observe that the whole of the criminals (which amount to upwards of two hundred) have the greater proportion behind the line, while the whole of those respectable in society have the greater proportion before it.

The Carribean Indians, the most cruel race at present known, have this organ very large; likewise many others among the national skulls; and the proportions behind the orifice of the ear agree with the characters.

The casts of Bellingham, Hussey, Nesbitt, Williams, Dean, Thurtell, and many others, have it very large; also the proportions large behind the line drawn from *meatus* to the crown of the head.

Persons fond of hunting, shooting, and all kinds of sports that lead to the death of animals, have it largely developed; likewise those fond of attending executions, cock-fighting, and such amusements as lead to the severe punishment or probable death of animals.

From the above observations it appears that the general tendency of this faculty is the disposition to execute and destroy, without determining the mode or object, that depending on its combinations with other organs, and the proportion of brain found before or behind the line drawn from *meatus* to the crown of the head.

Dr. Spurzheim, in speaking of this organ, says, "I think that its sphere of activity is more extended than the instinct to kill. It seems to me, that this faculty pro-

duces the propensity to destroy in general, without denoting any object, or manner of destroying; that it also gives the propensity to pinch, scratch, bite, break, demolish, suffocate, drown, poison, assassinate," &c.

Many animals have a propensity to kill, beyond doubt; and it is more or less energetic in animals of different species, and even in the individuals of the same kind. There are some species which do not kill more than they need for their nourishment; while others, as the wolf, tiger, polecat, &c. kill all living beings around them, and that seemingly for the pleasure of killing alone. One dog scarcely has this propensity, while another possesses it in a high degree: hence it appears to us, that individuals, having this faculty largely developed, will have desires to carry into execution and determine, and that according to the combinations as before-mentioned; while those, being small at Destructiveness, are not so inclined, and take great trouble to avoid determinations, executions, the death of animals, or anything like cruelty towards them.

7. Secretiveness, the propensity to conceal, and of cunning.

This organ is situated on the side of the head, above that of Destructiveness, nearly in a line from the orifice of the ear to the top of the head; when largely developed, it gives a roundness to that part, which may be easily perceived, if Cautiousness, which is situated over it, be moderately developed; but if Cautiousness and Secretiveness are both large, it then gives the appearance of great width to that part of the head. These observations attended to, this organ may be easily determined.

This faculty, when largely developed, gives the powers

of concealment of any object or act individuals may have in view, particularly if Cautiousness be full. It is under the influence of this organ, and Cautiousness when large, that the many works of eminent men and authors are concealed; also the names of authors and inventors till after death. When Secretiveness and Amativeness are large, in combination with the greater proportion before the line from the orifice of the ear to the top of the head, it then gives those peering sidelong glances so often observed; and when combined with the superior Sentiments and Conscientiousness large, it becomes the first secret atimulus of those feelings of intimacy reciprocally manifested between friends, though great length of time before outwardly declared.

If with this organ, Cautiousness, Ideality, and Locality, are large, it gives the poet, author, artist, mechanic, philosopher, and every one connected with invention, the power of concealing in their minds the various matters they have under consideration till the proper opportunity suits to bring them forward, or put them into view. When these faculties are small, individuals lose their power of concealment, and are constantly in the habit of repeating to every person they see their inventions, and all they know; and, if Self-esteem be large, taking much credit to themselves for their communication or invention.

It is under the influence of this organ when very large, with Acquisitiveness also, that a strong desire becomes manifested of gathering together property in a private and secret manner, which we so frequently hear of, and of secreting money, property, and inventions, through the influence of which much of the whole is lost to the person and the public. It was under the activity of those two

organs large, that the memorable observation of Socrates was made to his scholars of his concealment of the sticks he had stolen from his neighbour's hedges.

The cast of Hussey, hung for the murder of Mr. Bird and his housekeeper at Greenwich, has Secretiveness and Cautiousness very large; and is also another illustration, by the circumstances of his concealing himself and keeping out of the way many months, although a reward of seven or eight hundred pounds was offered for his apprehension.

The cast of Luscombe, hung at the Devon county Gaol, is, with the circumstances connected with it, a singular instance of Secretiveness and Cautiousness, they being in him very small, who, after committing the murder and robbery for which he suffered, put on a coat he had stolen, and cried the papers about the streets for the apprehension of the perpetrator of the crime he had committed.

This is another faculty which, like Combativeness and Destructiveness, is in general fully and largely developed, and becomes equally useful when in combination with the superior organs, and the larger proportion before the line; it being only under certain combinations with the greater proportion of the animal propensities that it comes into abuse. It appears, that its special faculty is the propensity to be secret in thoughts, words, things, or projects. The fox is careful not to be observed; the cat, watching a mouse, moves not a limb; sly animals, if pursued, hide themselves; a dog conceals his bone; and cunning persons their opinions and intentions, sometimes even expressing an opinion opposite to their own. The special faculty seems to be the propensity to conceal, without determining the object or the manner of con-

cealing, that depending on the combination of other organs with it.

8. Acquisitiveness, the propensity to acquire—to accumulate.

This organ is situated at the upper part of the temple, on the anterior inferior angle of the parietal bone, between Constructiveness and Secretiveness. It is proper to man and animals, their subsistence depending much on it. The special faculty of this organ is the propensity to gather and acquire, without determining the object to be acquired, or the manner of acquiring, that belonging to other organs to direct.

This is another of the organs which, in the early consideration of the science, gave rise to many ridiculous observations. Dr. Gall, having discovered it large in the skulls of thieves, called it Theft; more recent publications called it Covetousness; but experience and research now determine its proper name to be Acquisitiveness.

This is an organ that is in general fully and largely developed, very few having it small. In the collection of casts, taken from individuals all respectable in society, there are not more than five or six that are small at Acquisitiveness; it being an organ that is in general largely developed in the heads of the people of this country, particularly in the very active part of society.

It was natural to suppose the impression that would be made by the name first given to it, that of Theft, more particularly when it was supported by facts.

We have a great many casts that bear out Gall's observations: those of Patch, Puckle, Clover, Haggert, Keppell, Brockett, and many others, are examples of Thest and Covetousness; and it is curious to observe, that it is

in combination with the animal propensities, and the greater proportion behind the line drawn from the orifice of the ear to the crown of the head. Thus it is evident, that the organ, when very large, combined with the greater proportion of the animal, as above described, leads to seek the possession of money, property, and any thing coming in its way, without considering the means of obtaining, or the right to the possession, or the risks of the adventure to obtain the same; and according as it may be in combination with other faculties, so will the distribution of the property among their companions be observed. If Acquisitiveness, Secretiveness, and Self-esteem be large, and Benevolence moderate, those so organized will disregard the wants of their companions, although partaking of the dangers with them; they will take means to become possessed of the stolen property, and appropriate the same to their own use. Remarkable illustrations of this combination are the casts of Puckle and Keppell, who, after the robberies committed by them, obtained the property, and refused to share or give an account to their companions of it; the former was detected in consequence of his refusal to his companion of a fair portion of the property.

This organ, when fully developed, appears to be one of the most active of the whole; and, when in combination with the greater proportion before the line (before spoken of) from the orifice of the ear to the coronal surface of the head, appears to be one of the most useful organs, particularly with good combinations of the moral, intellectual, and reflecting faculties; it then gives a motive and stimulus to honourable acquirement, and leads on, by perseverance to the possession of large properties and wealth. It is to the activity of this faculty, being largely developed in

good combinations, that the great wealth so honourably acquired in this country is to be principally attributed, as those having it large are always speculative. We have easts of several so organized, who are known to be very speculative.

Individuals having this organ small, or moderately developed, will think little of the accumulation of property; and if in the possession of it, or in the receipt of the same, they will distribute it with equal or more freedom than they obtained it, particularly if Benevolence be large: persons so organized will often forego pecuniary advantages.

This organ, when large, in combination with the larger proportion before the line, as before mentioned, and Benevolence moderately developed, leads to the acquirement of property, storing up and hoarding the same, and seems gratified in accumulation, parting reluctantly with it till death. Individuals so organized will often express fear of want. Coins, medals, books, curiosities, pictures, statues, and every description of property, are obtained and accumulated by the manifestation of this faculty in collectors; its primitive function being to give the desire of property, without determining the kind, or the mode of acquiring the same, that depending on the influence of the rest of the faculties. The sentiment of property is natural in animals and man,-it was anterior to all legislation. In animals the sentiment submits only to strength and force; but man, who is susceptible of morality and justice, determines the laws according to which an object is property or not.

Youths having this organ moderately developed, seem to go onward in their pursuits without a motive, while

others, having it large, manifest feelings evidently developing a motive for every thing they undertake or engage in. We have seen many, having it small, who are inattentive and indolent in their education and pursuits; while others, having it large, pursue every thing with a strong desire to acquire.

The activity of this organ is early manifested in children; those in the habit of observing their actions will find many, upon presenting them with toys or other things, when the first pleasure is over, take no care whatever of them, while others will put them away, or give them to their parents or attendants to keep, considering them as their own property; the former will be found, upon enamination, to have the organ moderate, while the latter will have it fully developed.

9. Constructiveness, the propensity to construct—to invent.

This organ is situated on the temple; when very large it gives a fulness to that part of the head forward of Acquisitiveness. This faculty is essential to every mechanical profession, and to all those who in any way require invention in drawing, engraving, writing, carving, sculpture, and all branches of art, and every thing that requires construction, from the hut of the savage to the palaces of kings; its principal function being to invent, contrive, or construct, without determining the mode of executing, that belonging to the combination of other organs.

Individuals having this organ largely developed have a turn for ingenuity, and seldom feel at a loss how to contrive, or give directions for any thing they may want done; they will also readily contrive and substitute one thing for another: and when in combination with Ideality, Form, Size, Weight, Numeration, Locality, &c., it produces such works as we have heard of and seen by Smeaton, Watt, Rennie, Brunel, and many other artisans of celebrity; but when large, and Self-esteem also large, and the other faculties small, it causes those wasteful expenditures on machinery we so often hear of, without any probable chance of success. Individuals so organized it is difficult, nay, almost impossible to persuade them they are wrong, Self-esteem not liking contradiction in opinion, while Constructiveness is exciting to the execution of a project; and if to these two organs Marvellousness be large, the individual so organized, will have many visionary schemes, such as perpetual motion, &c.

Children having this organ, with Individuality, Form, and Imitation large, will, at an early period, manifest the same by cutting papers, or chalking the place in which they are with rude imitations of trees, horses, &c.

Gentlemen of fortune having this organ large are continually building, or altering their houses, grounds, and places around them. It likewise gives strong desire of seeing workmen about; and feels much pleasure in giving direction in various works, and in laying out grounds and plantations.

Females having it large will show much ingenuity in cutting and contriving; and, if combined with Form and Ideality, they will display much taste in their articles of dress, furniture, &c., and in the distribution of them. Those so organized will be often called upon by their acquaintances to cut out and contrive for them. The clever milliner of Vienna, spoken of by Gall, has Constructiveness, Form, Imitation, and Ideality, all largely developed.

Many animals have this organ large: by its aid the beaver builds its hut, the rabbit and badger burrow, and the martin and other birds build their nests: by the aid of it, the American Indian, who has it large, carves his various ornaments, and makes the baskets and other things executed by him. The smallness of this organ in the casts of the natives of New Holland is equally remarkable, as it is well known that they have not the least idea of contriving any thing for barter or sale, or even for their comfort.

Care should be taken in making observations on this organ, as it will very frequently be found higher up than it is generally represented on the bust, being often found joined with Ideality, the two organs appearing as the continuation of one. This is the case in the casts of several engineers we have in the collection.

SECOND GENUS OF THE AFFECTIVE FACULTIES, CALLED SENTIMENTS.

THE following faculties are called Sentiments: namely, Self-esteem, Love of Approbation, Cautiousness, Benewclence, Veneration, Firmness, Conscientiousness, Hope, Marvellousness or Wonder, Ideality, Mirthfulness or Wit, and Imitation. Several of them are common to man, with the lower animals; others are proper to man.

The different species of organs which give merely propensities are the preceding. These produce equalization of the inclinations, manifest more of the emotions of the soul, and are called sentiments.

What are the functions of the sentiments?
Each of the sentiments joins to a propensity an emotion

or feeling of a specific kind, as thought, notion, opinion, sensibility of feeling. Several of them are common to man and animals; others are proper to man.

Are not those endowed with a large development of the moral sentiments in general anxious for the welfare and happiness of others?

Certainly, that is the case; those having a large coronal region, i. c. the moral sentiments, are in general very anxious about the welfare and happiness of others; for howsoever selfish man may be there are evidently some principles in his nature which interest him in the fortunes of others, and render their happiness necessary to him, though he derives nothing from it, except the pleasure of seeing it. Of this kind is pity or compassion, an emotion of the moral sentiments, by which we feel for the misery of others, or joy and pleasure by which we feel a delightful emotion for the welfare and happiness of others, when we either see it, or are made to conceive it, in a lively manner. That we often derive sorrow from the sorrow of others is a matter of fact too obvious to require any instances to prove it; for these sentiments, like all other original passions of human nature, is by no means confined to the virtuous and humane alone, though they, perhaps, may feel it with the most exquisite sensibility.

If man were seriously inclined to study the nature of a development of his own organization, that is, the state of his moral sentiments in comparison with the propensities, would it not give him a clue to his own passions and inclinations, and thereby enable him to employ a remedy to correct the defects of his organization?

When man shall be seriously inclined to understand himself and the state of the development of the moral

sentiments in comparison with the propensities, let him sedulously endeavour to discover the matter that enters into his combination which constitutes his organization; these discoveries will furnish him with the clue to the nature of his desires, the quality of his passions, and the bent of his inclinations; it will enable him to foresee his conduct on given occasions; it will indicate the remedies that may be successfully employed to correct the effects of a vicious organization, of a temperament as injurious to himself as to the society of which he is a member.

Although but few experiments have been made with a view to learn what constitutes the organization of man, there are still means enough if he would but deign to make use of them—if he would vouchsafe to apply to useful purposes the experience we have gleaned—whereby he would discover that by attention to the divine law, the natural law, and morality, he can alter his present character, and thereby his organization.

Are there any known cases whereby attending to what you call divine law and morality, the organization has undergone an alteration?

We have a number of cases wherein casts have been taken at two periods, the latter casts two, three, and four years after the first, where it has been known the parties have been indulging in low and improper society, that having changed the course of living and society, and following religious and high moral precepts, a change of form of the head has taken place—the propensities has got less, and the moral sentiments much larger.

Are any of the first causes known which occasioned the change of character in the individuals alluded to?

Certainly not: our province has been, and now is, to

endeavour to learn what are the effects arising from causes; nor can we ever depend upon what will happen solely by our ideas of final causes or their effects, otherwise than what has usually happened in similar cases; for our knowledge of God and his proceedings is very imperfect at best. He has given us experience and a capacity for observation to correct our errors in theory from time to time;—"it is true, we cannot enter into the counsels of God, nor discern his manner of proceeding; but we may reason upon them, in many cases, with a clearness that shall work a full assurance upon the mind to the exclusion of all doubt, as even experience or demonstration can do upon points with which we are well and intimately acquainted."

What are we to understand as the design of divine law, which attended to, the organizations have improved?

The design of divine law is to inquire into those rules which Nature alone prescribes to man, in order to conduct him safely to the end, which every one has, and indeed ought to have in view, namely, true and solid happiness; the system or assemblage of these rules, considered as so many laws imposed by God or man, is generally distinguished by the name of natural law.

SENTIMENTS.

10, Self-esteem; 11, Love of Approbation; 12, Cautiousness; 13, Benevolence; 14, Veneration; 15, Firmness; 16, Conscientiousness; 17, Hope; 18, Marvellousness or Wonder; 19, Ideality; 20, Mirthfulness or Wit; 21, Imitation.

What are the attributes of the moral sentiments?

They tend to show the necessity and advantage of a high moral conduct in the heads of families and preceptors, also leading others to the duty and practice of virtue, and to a sensibility of feeling.

The situation of the sentiments must strike every one who duly considers the subject with admiration (nay adoration) of the works of a supreme being: they are emblems of the high moral points of character of man, and are situated on the highest part of the head, the coronal region.

10. Self-esteem, the sentiment of self-importance—consequence.

This organ is situated on the posterior part at the back of the head, on the middle line from front to back, being under Firmness and above Inhabitiveness: when large it gives a roundness of appearance to that part of the head, particularly if Approbativeness and Inhabitiveness be largely developed.

This is one of the faculties which has been attributed, by writers on the philosophy of the human mind and man, to external circumstances; but none have thought of an organ on which its manifestations might depend—that appears to have been left to Phrenology to point out

In taking a view of this organ, it appears to us to be one which takes as active a part in the character of man as any of the whole series: hence, according as it appears large or moderate, with modifications or combinations of the other organs, also in the relative proportion before or behind the line from the orifice of the ear to the crown of the head, so will the individual character partake of its influence.

This organ, when very large, and the reflecting faculties moderately developed, disposes men to be partial to themselves, and esteem others only in their own image; and excites every one so developed to his own interest and preservation; giving them a good opinion of their own personal qualities; taking pleasure in placing themselves before others:—

"Kind self-conceit to some her glass applies, Which no one looks in with another's eyes; But, as the flatterer or dependent paint, Beholds himself a patriot, chief, or saint."

The man of sense, equally with the fool, entertains the same complacent ideas of himself, each in his way; exhibiting frequently arrogance, haughtiness, vanity, frivolity, and ostentation, which will appear in various shapes, according to the difference of the combination of the other faculties, education, rank, fortune, and the society in which he is placed, which will show itself according as Cautiousness, Combativeness, and Destructiveness may be more or less developed. The former being moderate, and the two others large, its actions will be continually annoying by manifesting a determination to have the mandate obeyed, without considering the results or consequences.

Under the above combination it cannot bear opposition, and seems only to approve of that which, by a sort of tacit agreement, has entered into a man's feelings, that each shall love only that to a certain degree which he thinks worthy of or in himself; and seems to become deaf and blind to every thing but what he admires, that often to his own supposed perfections, and is disposed to think that his own conviction of their existence is sufficient to render them equally discernible to all.

How different is the individual that happens not to be so

organized, but who has the reflecting faculties large, with a good proportion of the moral sentiments, and the greater proportion before the line! he will feel like many of the ancient philosophers. That these fundamental principles, deduced from Nature by the most acute, and confirmed by the daily experience of every attentive observer of mankind, throw a light on many ludicrous appearances, which are constantly to be seen around us, or observed in history, which appears to be no other than an account of men's infirmities and defects, all of which arise from too great a proportion of this faculty with certain combinations; but what science, previous to Phrenology, could point out the why and wherefore of all this difference of character in man?

An able writer on the human mind, who took an extensive view of man, says—" Man looks upon himself as the centre to which all created beings tend. Among the pismires inhabiting this mighty mole-hill, there have been always some who could not discard the idea, that the sun only shone for them to bask in; that the starry worlds were nothing more than golden studs placed for the sake of ornament in the firmament; and that the whole of this system was created solely for the supply of their wants, the gratification of their senses, and the amusement of their imaginations."

Experience points out to us daily the correctness of these observations, and none more so than when this organ is very large, and the individuals labouring under derangement; they then frequently fancy themselves emperors, kings, queens, &c. Tilney Mathews, who died in Bethlem, styled himself an emperor, and made drawings, which showed the singular influence of this organ and Marvellousness. An individual in the Hospital at Paris fancies

himself king, dresses himself in a ridiculous manner, sticking stones, buttons, toys, and other things about his dress, calling them jewels, and commands those around him to obey. Two females we have seen dress themselves in the same ostentatious manner, who labour under derangement; we have examined them, and found Self-esteem in both very large. This organ, when large, combined with the reflecting faculties, Combativeness, Destructiveness, and Approbativeness, leads man on to some of the noblest actions and deeds recorded.

This combination leads man onward—it inspires confidence in one's self—it produces the power even of resisting time—an emulation of one's self, to surpass by new deeds our former ones, and to eclipse, by greater merits, those which are already acknowledged to belong to us; hence it appears that a due proportion of this faculty, with good combination of others, gives us the power to exalt ourselves above the weakness of human nature, to exert our talents in praiseworthy enterprises, to obey the dictates of our conscience, to smile under misfortune, and to rely on seeing, through perseverance, a change.

Different nations have this faculty more or less developed. Excite this faculty by admiration of their acts, &c., and you will receive caresses and favours; offend or place it in a menial occupation, however trifling, and you will as quickly meet repulse.

Upon the whole, the activity of this organ is to be seen prominent in most nations. The Greenlander, who laps with his dog in the same platter, despises the invader of his country, the Dane. The Cossacks and Calmucks possess the greatest contempt for their masters, the

Russians. Ask the Indians, who live at the mouth of the Oronoko, from what nation they derive their origin, they answer, "Why we only are men." In short, there is hardly any nation in which instances of the activity of this organ do not occur.

It appears that certain animals are endowed with this organ, as the turkey-cock, peacock, horse, &c.

11. Love of Approbation, the sentiment of approbation—distinction—notoriety.

This organ is situated in the upper lateral posterior part of the head, on each side of Self-esteem; and when very large gives a squareness of form to that part.

Every person of understanding, who has given attention to his own conduct and that of others, has in his mind a scale of good or evil more or less exact. He makes an estimate of the value of reputation, self-approbation, and the approbation of others, which have a comparative importance in his cool and deliberate judgment.

When largely developed, it directs our attention to the opinion which others entertain of us, and produces the love of fame, praise, emulation; and, in combination with Self-esteem and Firmness, vanity. It is this faculty that appears to make us conscious of pleasure in the eyes of others, and also makes the case of those who think and talk. It loves to be caressed, flattered, and applauded: persons endowed largely with it are very anxious, and take great pains to obtain the approbation of others. It is more developed in females than males, and much more amongst some nations than others. It is one of the organs that seems interwoven in the English character, being one of

the strong motives for most of our actions, whatever means we may take to conceal the fact, and has contributed largely to raise this country so much above all others (in importance) in the scale of nations.

The love of approbation or notoriety may lead to war or peace, indolence or industry,—to vice or virtue, and to every kind of action, good or bad, according to the excitement and activity of other organs in combination with it, and according to the object approved of by those having the direction or control of others.

It is in general largely developed in the English, and when in combination with the superior faculties, largely developed, it leads on to noble actions. The love of notoriety excites the statesman to seek the approbation of his sovereign, the servant of his master, the artisan of his employer; and it is one of the greatest excitements by distribution to charities.

There are many animals that have it largely developed, such as horses, dogs, cats, &c., which are sensible of the caresses bestowed on them.

12. Cautionsness, the sentiment of caution—circumspection—hesitation.

This organ is situated on the upper part of the side of the head, between Conscientiousness and Secretiveness; it occupies a large portion of the brain, and when large is easily observed, giving to that part of the head a squareness of form.

This organ, when fully developed, gives the power of looking into circumstances, and considering well the object before making the decision, and thus becomes very useful

in the common affairs of life. When very large, it produces doubts, hesitations, and indecision, seldom, within a moderate space of time, fixing on any thing under consideration, but more frequently putting off the answer or determination for the morrow, particularly if Combativeness and Destructiveness be moderate.

Individuals having this organ and Secretiveness also large are in the habit of concealing their opinions from view for a great length of time, seldom giving the same till extracted from them, often by artifice or taunting; those so organized at times conceal their real opinion to their own injury, and often to that of others; and if, with those faculties large, Hope be moderate, they will be prone to suspicion, and are often subject to despondency, though seldom outwardly shown. When small, and Secretiveness moderate, it produces a volatile feeling. Persons so organized are unable to keep a secret, and often are imprudent in hasty observations. Its special faculty, when fully developed, produces precaution, demurs, places sentinels, and continually exclaims, Take care; and produces the hesitations expressed by but; and when too active, it causes uncertainty, irresolution, anxiety, fear, melancholy, hypochondriasis, &c.

Many animals have it large: it produces circumspection in them, as the stag, roe, pole-cat, otter, mole, &c.; also those which place sentinels to warn them of approaching danger, as the chamois, cranes, starlings, bustards, &c.

The skulls of the wolf and deer are remarkable for their development of this organ: the former has it small, and Destructiveness large; while the latter has it large, and Destructiveness small. The deer is known to be a shy,

timid animal, and the wolf bold and ferocious, often approaching the habitation of man in search of its prey.

13. Benevolence, the sentiment of amiableness—goodness.

This organ is situated on the superior part of the forehead, between the two parts of Imitation, also on the middle line between Comparison and Veneration; it is easily observed when large, giving a fulness and roundness of appearance to that part of the forehead.

This organ, when large, takes a very active part in the character, and is one of the most amiable possessed by man, properly applied; and has been a subject muchdiscussed amongst philosophers from very remote per riods-whether man is entirely selfish in his actions, or whether any of the sentiments in his mind determine him to the good of others. The Phrenologists consider the faculty to give a disposition to acts of benevolence and compassion; it gives when full a mildness and cheerfulness to the temper, and a charitable mode of judging of the characters of others; when abused, it leads to profusion, and when small, it leads to indifference for the welfare of others. It is a beautiful contemplation to view the powers this noble sentiment is capable of when supported by other sentiments and a good development. Dr. Spurzheim states that it produces goodness of heart, kindness, peacefulness, mildness, benignity, complaisance, clemency, mercifulness, compassion, humanity, hospitality, liberality, and Christian charity. St. Paul gives a beautiful description of it in his account of Christian charity: "Charity suffereth long, and is kind; charity envieth not; charity vaunteth not itself, is not puffed up." One would

hardly believe that a feeling so amiable as Benevolence could ever be abused, but such is the case often: the assessments for the support of the poor, and the sloth and indolence produced by them, are natural consequences of it.

As the restraining as well as the active duties of Benevolence are essential to society, our Maker has wisely ordered that the principles that enforce these several duties should be the most cogent of all that belong to our nature: other principles may solicit, allure, or terrify; but the principle of duty commands, and must be obeyed. This will be the case when in combination with the superior sentiments largely developed, and the larger proportion before the line from the orifice of the ear to the top of the head; it being when in combination with the greater part of the brain behind the line that it comes into abuse. Under this combination, the individual so organized would profusely distribute in order to become the hero or delegate of the society in which he moves. Thurtell, Haggerty, and other criminals, are examples of this organization, in combination with the propensities large and the moral sentiments moderately developed.

Hence it will be observed, one of the great purposes of society is to furnish opportunities of mutual aid and support; Nature, seconding that purpose, hath provided the principle of benevolence, which excites to be kind, beneficent, and generous. Nor ought it to escape observation, that the Author of Nature, ever attentive to our wants and to our well-being, hath endued man in general with a liberal portion of that principle; it enforces benevolence not only to those we are connected with, but to our neighbours, and to those we are but little acquainted with.

Thus it appears that the principle of benevolence is not too sparingly scattered amongst men; it is, indeed, made subordinate to self-interest, and which is wisely ordered, but its power and extent are nicely proportioned to the limited or extended capacity of man, and to his situation, so as better to fulfil its destination.

14. Veneration, the sentiment of adoration—reverence—to regard with awe.

This organ is situated on the upper part of the head in the centre of the rest of the sentiments; and, when large, taking the head in profile, it gives an arched appearance to that part.

Those having this organ, Benevolence, Hope, and Marvellousness, largely developed, are inspired with a sensation of respect, and when directed to a Supreme Being, leads to adoration. It has heretofore been considered that this organ gave the strong sensations of religious feeling, but experience proves that it is not by this organ alone that feeling is excited. Numerous observations now prove that when this organ, Marvellousness, and Hope, are large, and the sentiments fully developed, persons so organized manifest a strong disposition of religious feeling, and may be seen constantly attending to devotion and places of worship.

Dr. Gall found this organ largely developed in persons who shewed strong devotion. Lavater had also observed a rising on the heads of religious persons, also in persons who had chosen the ecclesiastical order from a natural inclination. It appears, from the observations made by Drs. Gall and Spursheim, that artists, in pourtraying their conception of this noble sentiment, particularly in nume-

rous instances where Jesus has been introduced, have given to the head a characteristic of pure devotion, in delineating it as a high head, and making it full and in unison on both sides, which fact is curious in the configuration of the heads representing Jesus. History proves this sentiment, but does not inform us what is the nature of God; because mankind had at all times ideas extremely different; they are not, at the same time, accorded under the number of superior beings. The sentiment manifested by this organ is Veneration in general, without the determined application it can exercise, by the choice of the persons, the ideas, and the Supreme Being. The sentiment carries respect, and will acknowledge sacred things; it venerates the aged, the parent, and all that is respectable, and adores the principal of principles, and that to a high degree when in combination with the superior sentiments, and a greater proportion before the line, as shewn in the figure.

We have a great number of casts of individuals whose religious characters are well known; and not a single one of them but has the organ of Marvellousness very large, in combination with Veneration, and the moral sentiments also fully developed. There can be no doubt now but that this organization produces the strong feelings of the supporter of, and devotee to, religion and its institutions, but without determining the manner or direction of it, that depending on the combination with other organs.

15. Firmness, the sentiment of steadiness—constancy—resolution.

This organ is situated at the back part of the upper part of the head, on the middle line from front to back, þ

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between Conscientiousness and above Self-esteem; when large it gives a prominent appearance to that part of the head.

It seems to be so placed for one of the noblest purposes; being situated in the midst of other powerful faculties, it assists Nature in her designs in strengthening some; and as a check on others. It appears to be so placed to maintain that composure of mind, which, without impairing its sensibility or ardour, proceeds in most instances with firmness and perseverance when fully developed. Combativeness, Destructiveness, Self-esteem, Cautiousness, and Conscientiousness, also large, give the power of following the dictates of its own mind with firmness through all the varieties of human life, with a mind always master of itself, in prosperity or adversity, when the subjects under consideration are life as much as when treating the single question, looking onward with justice, determining the object under consideration by firmness.

"No man can be either useful to others or happy to himself, who is a stranger to the grace of firmness, and who is not habituated to prefer the dictates of his own sense of rectitude to all the tyranny of command and allurements of temptation."

Dr. Gall and Lavater made the same observation on this faculty, that those who have a firm and resolute character, have the summit of the head very high and fully developed. A person endowed with this faculty will insist on this or that; but under such feelings, it is not affected by reason, but by the love of command. It is the sentiment which gives constancy and perseverance to all the other faculties, fixes and supports that activity, and gives a disposition to independence; above all, when combined

with Self-esteem too active, it produces abuse, frowardness, commotions, obstinacy, prejudice, the spirit of sedition, &c. When there is a deficiency of this faculty, it renders them inconstant, changeable, and uncertain. It must also be remarked, that the activity of this sentiment does not determine its application, as that depends on the combination of other faculties; in a good and just man, it gives the love of independence; by it the proud man will not obey the command of others, but loves to force his own mandate.

16. Conscientiousness, the sentiment of goodness—justice—veracity—principle.

This faculty is situated on the upper part of the back part of the head, on each side of Firmness and ever Cautiousness. It is one of the most important of the whole organization. When largely developed, accompanied with the superior faculties, and a small proportion of the animal, it produces one of the noblest works of the Deity, whose hand is no where more visible than in the nice adjustment of our nature to our situation in this world.

Dr. Spurzheim considers this organ to have the particular sentiment of just and unjust, right and wrong, and that a particular organ of justice must be admitted; that no animals have this faculty; and its activity is very different in man, some being almost destitute of it, while others possess it in a high degree, the particular determination of it depending on such other faculties with which this sentiment is combined.

There is not a more pleasing sight in history than the man of goodness and understanding, who, in spite of

change of fortune, remains the same in every period of his life; and who sees the necessity of fulfilling every meral duty and justice, and cordially submitting to them as the ultimate judge in all matters of right and wrong. How different the man who has this organ and the superior sentiments small, and a large proportion of the animal propensities; many (unfortunately) so situated, are to be seen amongst those in the collection of casts who have suffered the penalties of the law for their crimes.

This faculty also produces a great effect upon the manifestations of the other powers; its sentence makes us guilty to ourselves and in the eyes of our Maker, however strong the principles set in opposition to it; and it is evident that this principle has, from its nature, authority to direct and determine in regard to our conduct, to judge, to acquit, condemn, and even to punish—an authority belonging to no other principle in the human mind. This sentiment requires great care in judging of its powers and combinations, it having so extensive a connection with, and (when large) an influence over most of the other faculties and propensities; to which, being over them, it seems that Nature has so planted it as a barrier, which, like the boundary or fence, when kept up, prevents many fatal accidents, but when neglected, is open to many inroads and unpleasant occurrences.

17. Hope, the sentiment of expectation—confidence—something desired.

This organ is situated on the upper part of the head, on each side of Veneration; when largely developed it produces the sentiment of Hope in general, and happy are those possessing it in considerable proportion, to whom all

is fair, and whose prospects of the future are bright and sunny, without a speck or cloud to obscure the horizon. In religion it cherishes the belief in the immortality of the soul. To the traveller, it is one of his greatest comforts when accompanied with perseverance; it will then say, with Park, when laying himself down in the desert to resign his life,—"Can that being, who waters and uprears in the midst of desolation, leave man, the noblest of his works, thus to perish?" Hope led the way, and succour and safety were found nearer than had been anticipated.

It strengthens the disposition to look on the brightest side of objects, cheering its possessor, whose feelings say why—

"——— Hope seeks a smoother way,
And dwells on fancies which to-morrow see;
To-morrow comes, true picture of to-day,
And empty shadows of what is to be;
Yet cheated Hope on future still depends,
And ends but only where our being ends."

When very large, Marvellousness also fully developed, it leads to anticipation, much of which being highly improbable—nay, upon reflection, impossible—ever to appear in reality. Dr. Gall thinks that Hope is an emblem of every organ. Dr. Spurzheim distinguishes it from desire in general; also that every faculty desires, but every one does not hope. He considers this sentiment as necessary to the happiness of man, in almost all situations, and that it contributes usually to the issue of the projects. Hope does not confine to circumstances of this world; it stretches upon the life to come, and is disposed to admit the immortality of the soul, and which the Christian religion hopes

the reality of. He also considers this faculty as extremely important, and produces abuse as well as other faculties.

18. Marcellousness, the sentiment of the supernatural—wonderfulness—strangeness—astonishingness.

This organ is situated a little forward of Hope, between Imitation and Ideality.

This organ, when largely developed, with Benevolence, Conscientiousness, Hope, and Marvellousness, produces strong feelings of respect for the Deity. Individuals so organized are fond of works on Theology, and hold religion and its institutions in much respect; if to those organs, Veneration is found largely developed, the persons so organized will be found devotees to religion.

From the great number of casts we have with this organ and Veneration large, and with them small, little doubt remains in our minds of this organ being the principal one that gives the strong feelings of, and attaches those having it large (with the combinations mentioned) to, religion and its institutions,

It also gives strong feelings to the man who searches after and sees into the marvellous. It is very prominent in the human species; the savages, as well as civilized nations, shew it on many occasions; also people who give to their founder any original fiction, which they propagate by their marvellous accounts; also to persons who are amused by fiction, and all that is wonderful, surprising, mysterious, or any thing that is done by miracle; these sentiments being believed by the magician, he sees inspiration, presentiments, phantoms, and demons; and by the astrologer, visions and witchcraft. It contributes a good deal to the faith in religion, by the belief in

mysteries and miracles; in dramatic productions it introduces spirits, and the representation of all that is supernatural; and when very active, it believes in seeing and understanding visions, or fancies it is accompanied by spirits.

"Strange things, the neighbours say, have happened here.
Wild shrieks have issued from the hollow tombs;
Dead men have come again, and walk about;
And the great bell has toll'd, unrung, untouch'd!
Such tales their cheer, at wake or gosaipings,
When it draws near the witching time of night."

Such will be the feeling of this faculty when large, and the reflecting faculties are small. This organ and Hope act often together, and have a particular way of expressing themselves separate or in connection: Hope looking on the pleasant side, while Marvellousness is searching for the fiction.

The works of Jacob Behmen, Swedenborg, and the mystical writers, are dictated by the feelings given by the activity of this organ, according to the various combinations of other organs.

19. Ideality, the sentiment of the ideal—imagination—fancy—conception or image of the mind—idea.

This organ is situated on the side of the head, between Hope, Marvellousness, and Acquisitiveness. It inspires enthusiasm, and searches every where for perfection and the ideal, and that is why it is called Ideality.

Individuals differ very much in regard to the development of this faculty: according to its energy and activity, poetry is prized or relished; it gives a particular tinge to all the other faculties, and makes them in every thing aspire to Ideality. It produces the sentiment of the sublime and beautiful, and the spirit of imagination to the works of those authors who are allowed to be good poets. When large, it inspires with rapture, and prompts to embellishment, and is essential to the architect, sculptor, painter, and every art dependent on invention; without it, the productions of the mind may be useful, but will ever be deficient of grandeur of conception, or splendour of execution, and will want the glow of fancy which enlivens and beautifies the object of its research.

In common life, we may easily distinguish those who have it from those who have not a considerable development of it, the former speaking in an elevated strain of language, and, when animated, show a splendour of eloquence and of poetical feeling, while the latter are never able to command attention.

Dr. Spurzheim considers the peculiarity of it as belonging to the combination of the other faculties; that it is common to the genius of poets and authors, and contributes the primitive sentiment, by which they are endowed with their powers. He says, this sentiment does not produce the versifying nor the rhyme: some authors write in prose of a poetic manner; others make verse without rapture, which they sought in the poet; when in activity it exalts the imagination. This faculty matures the taste for the sublime, inspires enthusiasm, and searches every where for perfection and for the ideal.

In making phrenological observations on this organ by itself, or in combination with the other faculties, we must be cautious in the frequent and intense use of it, to assume facts of sensation, and to carry their relations or analogies no farther than intelligence or conceivability will permit;

beyond this is the province of fancy, which is the creature of its own actions, and pays no regard to the things as they exist in the constitution of Nature. This faculty, when large, combined with Marvellousness and Hope, assists the fancy, and attempts to render intelligible all the terms and names of religious mystery. Heaven and helf are under its considerations, which places are fancied to be inhabited by spirits. The writings of Jacob Behmerr and Emanuel Swedenborg are instances of this combination.

Dr. Gall, when he first discovered this organ, called it Poetry, having found it large in all the poets he met with. Many who have taken a superficial view of the science view it in the same manner, from which many ridiculous observations have been made on persons having it largely developed, and not being authors or poets. The extensive collection of casts now made, and observations also, prove the proper functions of this organ, and fully demonstrate that every person having original invention, is under the influence of this organ; and as the inventions prove more or less to possess the ideal and grand, so will the organ of Ideality be found to be more or less developed; also those organs that relate to the works or writings of those who are known to have original invention.

20. Mirthfulness, or Gaiety, the sentiment of cheerfulness—gaiety—mirth.

It is situated on the exterior part of the forehead forward of Ideality, and on each side of Causality.

This organ in former publications was called Wit; but, by very extensive observation made, Gaiety seems to be its more proper name. From numerous research, we find

all those having it largely developed have a turn for gaiety and cheerfulness, giving to their conversation a lively feeling, and pleasant manner in the whole of their transactions, unless restrained from outward manifestations of it by very large Cautiousness. (Cautiousness, when large, gives restraint of expression to many of the organs.) Persons who are known to be wits have this organ large; but. it is in combination with several others, namely Ideality, Imitation, Individuality, Eventuality, Melody, Comparison, and Secretiveness large, and Cautiousness and Causality, particularly the former, moderately developed. Webave several casts of persons who are thus developed, and who are known to excel in wit, repartee, and imitation. Those having Benevolence very large also pass their jokes aud make their repartee, attended with cheerfulness, humour, and a kindness of feeling; while others, having it moderate, with Secretiveness, consider little of the consequences, often delighting in passing their jokes to the annoyance of some one present, and take those sort of. means to hold them up to ridicule.

We have a great number of casts in illustration of it, as Gaiety, giving cheerfulness to the manner in every thing the individuals are engaged in; but few of those are known as wits.

Dr. Spurzheim, in his former publication, spoke of this organ as one of the intellectual faculties; but in his latter works he considers it as a sentiment.

Wit, in the general acceptation of the word, consists of conception formed by the higher intellectual powers connected with this sentiment. Humour consists of a manifestation or representation of the propensities or sentiments under the colouring of wit; in many of its powers it is

greatly assisted by Comparison and Imitation. Dr. Spurzheim says, amongst men who have wit and repartee, and those who, like Voltaire, Piron, Rabelais, Sterne, John Paul, &c., have the upper exterior part of the forehead, marked 20 on the bust, very fully developed. He considers the faculty of a wit consists in that of comparing objects and ideas, and in knowing similitude or dissimilitude, but that he does not consider it a comparing faculty, at least that the comparison is not its distinctive function; but that there is a particular manner of comparing or looking at the objects that appertain to him or her. Its tendency is of exciting to gaiety and cheerfulness; it combines itself with comparison, and produces that which amuses in the comparison; exact or inexact, it can apply itself to words, ideas, objects, phenomena, arts, and all the manifestations of the other faculties, and searches out all the pleasant sides; it enlivens the conception of the musician, painter, poet, and orator; and in puns, caricature, mockery, raillery, irony, ridicule, and all that depends on the ludicrous conceptions.

21. Imitation, the sentiment of the inclination to copy—to resemble.

This faculty is situated on each side of Benevolence, on the superior part of the forehead.

A true knowledge of Nature gives us great pleasure; but a lively imitation of it, either in poetry, painting, sculpture, and many of the fine arts, must produce a much greater; for those arts are, when well executed, not only true imitations of Nature, but some of the best of Nature. To the mechanical and various other arts, this faculty, when large, becomes highly useful and advan-

tageous. Dr. Gall received the first hint of the existence of this organ from examining the head of one of his friends, who possessed the power of imitating in a surprising degree, and was, indeed, a perfect actor. He also found it large in many others. Persons having the organ large, when they mention a fact, or relate an anecdote, imitate the voice, look, and gesture, of those they are describing or the object described; so that by imitative powers it is easily discovered and described. Imitation is of the first necessity to actors, but it does not make a comedian or tragedian: that depends much on the combination of other faculties. Its circle of activity is very great, in combination with Infants have it more generally developed other faculties. than adults, it being known they learn many things by imitating and repeating that which they see others do. many individuals, where this faculty is predominant, it gives them the inclination and talent of free pronunciation, and of imitating that which makes them authors. imitates the voice and gesture of animals and of men, and produces, in the arts, what is called expression (in which Raphael excelled): many birds imitate the cry and singing of others. The three last faculties are essential to theatrical representation, and appear to be given to man as a source of amusement to parties; they act in combination with the other intellectual faculties, and their nature appears to be effective.

The skull said to be that of Raphael has this organ and the whole of the sentiments largely developed, and corresponds with the superior feelings of ideal and imitative of the Deity in his works.

THE FIVE SENSES.

Our senses inform us, that external objects exist; we see them, or feel their influence. In our observations on the senses, we shall not take up too much time by dilating on the senses of feeling, taste, smell, or hearing, it being the province more of the physiologist or metaphysician than the Phrenologist.

But the sense of sight having immediate connection with the brain, that comes within our province to notice. We admit the views in general taken of four of the senses, namely, by the sense of touch, we discover whether the object be soft or hard, rough or smooth, sharp or obtuse; by the sense of taste, we perceive that things are bitter, sweet, sour, &c., and the peculiarities of their flavour; by the olfactory nerves, we are made acquainted with specific odours; by the auditory nerves, we learn whether, and to what degree, bodies are sonorous; and by the optic nerves, (the organs of sight,) we perceive the existence of bodies. We agree with the metaphysician, that the eye is the organ of perception; but we go to proofs, that the brain is the faculty of judgment of comparative sizes, their forms, colours, situations, &c.

These are facts of which we acquire an immediate knowledge by our senses. The impression which they make are so strong, that it would be superfluous to reason upon the subject; and we feel assured, prior to any exertion of the reasoning powers, no man will take the trouble of proving to himself the reality of his own existence: he will readily assent to the truth of the axiom when stated, that whoever thinks, feels, and acts, must

exist; but he will not suspend his sensations until he has proved the point; and few find it necessary to draw a formal inference, that if they see something, there must be something to be seen; if they hear a sound, that it must proceed from some sonorous body. Every one will confess that the existence or sensible qualities of bodies cannot be known à priori; and, moreover, that we should have remained ignorant of them, without the powers of sensation and the sense of sight.

It is commonly supposed that the art of painting derives from the sense of sight: it is certainly true, that the eyes are necessary to perceive colours, as ears are to perceive sounds; but the art of painting no more consists in the perception of colours than music in the apprehension of sounds. Sight, therefore, and the faculty of painting bear no proportion to each other; the sight of many animals is more perfect than that of man, yet they do not paint; and even amongst mankind, the talent of painting cannot be measured by the acuteness of sight. Great painters never attribute their powers to their eyes. They say, it is not the eye, but the understanding, which perceives the harmony of colours, which is fully illustrated by the cases annexed of Milne, Offley, and Sandys.

Mr. Milne cannot distinguish a blue from a scarlet, yet he has a fine sight, and executes extremely small and minutely delicate mechanical works, observes objects at long distances, can read a scale of minute divisions without the aid of a magnifying-glass; and, at present, writes a neat small hand without the aid of spectacles, at near sixty years of age.

Mr. Offley has the same power in observation of minute and delicate objects; but, as a proof of his want of discri-

mination of colours, he felt great anger at his wife having, as he imagined, a scarlet silk gown on, when it proved to be a puce or dark lilac.

Mr. Sandys was an artist of celebrity, making very beautiful lead-pencil, ink, or drawings in one colour; but never could accomplish one in various colours, and in an attempt, coloured the foliage of some trees light red for green.

Mr. Inglis, son of the Bishop of Nova Scotia, Mrs. Frankland Lewis, and Admiral Bullin, brought persons who were not capable of distinguishing colours to us, as tests of our judgment in the science, making a condition that the face should be covered before we made our observations; in all of which we pronounced that they had not the power to distinguish one colour from another. We have had many such cases, and have many casts proving the same fact. In all those cases the organ of colour is very small.

From these considerations, it follows, that many intellectual faculties which have been attributed to the five external senses do not belong to them; it is certainly a known law, that the external senses, i. e. the perceptive faculties, permit man and animals to communicate with the beings around them.

Human testimony is an extensive source of information; without its aid we should remain entirely ignorant of every event and transaction which preceded our existence, and of every occurrence which takes place, or has taken place, at any distance from us, or that is not within the compass of our personal knowledge; we therefore beg attention to the cases which have been mentioned, which must convince any thinking mind of the truth, that it is

not the eye alone that the power of perceiving sensible qualities belongs, but the medium through which the communication is made with the brain, that being the organ or faculty of judgment of minutia,—forms,—size,—weight or momentum,—numbers,—order, &c.

The facts now collected from the nature of the inquiry that is now going on, with the observations made by those making the inquiries, present us, however, with a strong proof of the deep respect paid to human testimony, where no suspicion concerning competency in gaining information or the veracity of narrators can justly be indulged; but nothing establishes testimony in a manner more satisfactory than a multiplicity of facts connected with other events, which succeed to those which have been candidates for our belief, and which could not have taken place without their prior existence. Events and transactions thus circumstanced corroborate each other, form a continuity of evidence that is irresistible, as the illustrations will prove; namely, that the eye is the organ of perception, but that the perceptive faculties in the brain gives the judgment to the sense of sight.

INTELLECTUAL FACULTIES.

THE next region of organs are situated in the forehead, being those called Intellectual Faculties. Their power consists in the mind's capacity to generalize its ideas, in order to take a comprehensive view of all the evidence or

relations appertaining to a subject: they are divided into three regions, namely,-First, the perceptive faculties. which are situated on the eye-brows (the supercibiary 'ridge); they make us acquainted with every individual object, and its physical qualities, and cannot be brought well into operation without the use of the eyes, around which they are beautifully situated, and have been found by dissection to be in direct communication with the optic nerves. Their names and functions are as follows: viz. Individuality, the faculty of perceiving separate or distinct existence—individual beings—substantives;— Form, of perceiving configuration-representationshape; - Size, of perceiving dimensions-bulk-magnitude :- Weight, of perceiving momentum-impetus-force-resistance; -- Colour, of perceiving hue-dye -tint-colouring;-Number, of perceiving quantitiesmultitude of units, as two, ten, twenty, &c.; -Order, of perceiving method—arrangement—system.

The second region of intellectual faculties are situated immediately above the others, in the middle of the forehead; they are more of a combined nature, and give us the idea of the different relations of various objects: their names and functions are as follows, viz. Locality, the idea of relation of place—relative positions—local distance;—

Eventuality, the idea of phenomenon—visible quality—events—facts—new appearances;—Time, the idea of duration—space—interest—season—periods;—Melody or Tune, the idea of music—sweetness of sound—harmony;—Language, the idea of human speech—distinct tongues—style—arbitrary signs—words. They are more of a compound nature, rank somewhat higher in their quality, and are situated a little higher up in the forehead.

The third or upper region of intellectual faculties are found in the upper superior part of the forehead, over the second region: they partake of a much higher quality, and are called the reflective faculties; they give the power of thinking and judging deeply, are two of the most important in the whole series, and when fully developed with good combinations, form man as one of Nature's noblest works. Their names and functions are, viz. Comparison, the faculty of judgment, how things differ from something else—of comparing by analogy—similitude of relations—comparative estimate, not positive;—Causality, the faculty of judgment of the agency of a cause—quality—effects—reason—reflection.

Upon due reflection on the various situations in which we find the intellectual faculties, their divisions, regions, and functions, it must strike every rational being with awe, nay veneration, at the works of the Supreme Being: this must cause the sceptic or doubter to pause and reflect; for be it remembered that the construction of the grand fabric, i. e. the brain, is not the work of man or of the Phrenologist; it is that of a higher power; the discovery of their situations and functions is all the Phrenologists claim, and upon which they now take their stand, and invite the opponent doubters or sceptics to prove them in error, not by words, but by facts; for the Phrenologists set more value upon one fact than upon a multitude of words, res, non, verba, quaso.

Supposing the intellectual faculties to be moderately developed from neglect, illness, or otherwise, do you consider it possible that they may be improved by admonition or example?

Certainly, we do so consider them capable of improve-

ment, and that passive impressions made upon our minds by admonition, experience, and example, though they may have a remote efficacy towards forming active habits of intellectual employment, yet they can have this efficacy no otherwise than by inducing us to such a course of action, that by so acting forms those habits; only it must also be always remembered, that real endeavours to enforce good impressions upon ourselves are a species of virtuous action. However, the thing insisted upon is, not what may be possible, but what is the fact, the appointment of Nature. which is, that active habits are to be formed by exercise. Thus, by accustoming ourselves to any course of action, we get an aptness to go on with facility, readiness, and often with a pleasure in it, thereby removing many of the imaginary difficulties; and thus a new character, in several respects, may be formed, and many habitades of life, which are not fully developed by Nature, are such as Nature directs us to acquire and improve.

From what has been stated, would not a better knowledge of ourselves and the state of our intellectual faculties discover to us how errors at times occur in our understanding and judgment?

From the want of knowing ourselves much better arise one of the greatest errors that the human mind is capable of, viz. ambition. The man who has never, by a careful examination of his intellectual powers, discovered their imperfection considers himself a kind of independent being; he sets up his reason as supreme judge, and whatever he cannot comprehend by it he ridicules. Self-examination, and an acquaintance with the nature and extent of the intellectual powers and passions with which we are endowed, would discover the folly and error of that inat-

tention by which our understandings and judgments have been misled. Moreover, a knowledge of our ruling passions and weakness of the intellectual powers, and to what they tend, will instruct us to correct their influence, timely to retreat from the objects of their gratification, and to guard the avenues through which danger, by the want of such knowledge, may assail us.

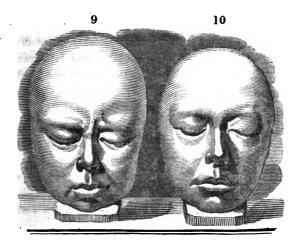
Have any facts been collected wherein it is shown that by education (study), or other means, the intellectual faculties have been materially improved in adults?

Certainly, that is the case. We are in possession of a number of facts, showing that by study the intellectual faculties have got much larger; viz. a gentleman residing in the city, having, from an indifferent state of health, and other causes, neglected the higher qualifying parts of his study, and feeling his deficiency, had a cast of his head taken at twenty-eight years of age; he then applied himself to particular studies recommended by a practical phrenologist for about three years, by which a great improvement took place, which enabled him to apply more readily, and with much greater facility and power, to his occupation, and a corresponding change has taken place by an enlargement of the very intellectual faculties called into action. Another case is that of a gentleman, whose first cast was taken when thirty years of age, who had neglected his studies, and had been giving way to lowarrusements; but being aroused by the higher monitor within of the course he was pursuing, and of his neglect of his professional studies, went to a foreign country, to get rid of his connections, for four years and a half, during which time he also applied himself to a study of the law, and with an extraordinary degree of success. Upon his

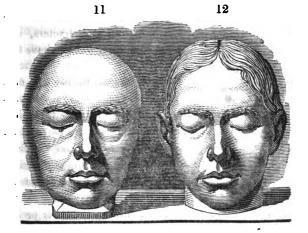
return, at the end of four years and a half, a second cast was taken, and the change that has taken place in the intellectual and moral regions of the head is extraordinary, corresponding minutely by the intellectual faculties and sentiments called into action getting a great deal: larger; the lower feelings and propensities during the same time having got less. The character, upon taking the first cast, was written, and advice given by a practical phrenologist also upon the return to England from the second cast, and with most singular correspondence with his characters in both cases.

Similar cases of improvement have also occurred where casts have been taken at two periods; in one case at thirty-one and thirty-seven years of age, in another case: at thirty-eight and forty-two years of age, and in a third, at forty-one and forty-six years of age, in which a change or enlargement of the intellectual faculties having taken place, corresponding with their new acquirement during the time. In fact, we have 102 casts, taken at all periods of life, showing changes to have taken place, with very material alterations of the individuals' characters, and which has been generally the case in those who have had second casts taken.

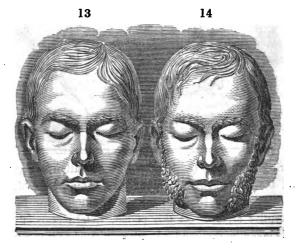
The following front views of Mr. G. Bidder will fully demonstrate that by neglect of education and moral direction a deterioration of the intellectual faculties:takes place, and that, by a change of direction of the faculties and with successful education, they again change, and an increase takes place. No. 9 is from a cast taken at eight years of age; here the reflecting, with a very few of the intellectual, faculties are large; but in No. 10 and No. 11 the reflecting faculties are deteriorating and receding.



During this period (eight years) no education was going on; the consequence of which is to be seen by the higher faculties getting less, but with a slight increase in the perceptive organs. At this period, sixteen years of age, he is taken by the hand, placed at a good school, and is

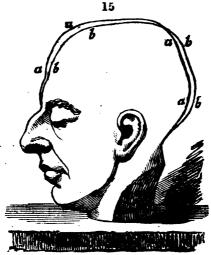


constantly in moral and intellectual society: about three years after the cast, from which No. 12 is taken, it is evident what a fine expansion of the whole of the intellectual faculties takes place. From that period to the taking of



Nos. 13 and 14 he is engaged in high intellectual pursuits, and we find the expansion going on in the whole of the intellectual faculties—this was during a period of near nine years—but which is better observed by reference to No. 15: the lines a a a a being taken from the last cast, No. 14, the lines b b b being taken from the fourth cast, No. 13; the increase forward being near half an inch at the reflective faculties, a diminution taking place at the same time in the propensities. Here is a clear proof of a diminution taking place in the higher or superior regions of intellectual faculties during the first eight years, when his education was neglected, and a fine increase of the whole of the intellectual faculties during the latter period,

when education was successfully going on, and his occupations were of an intellectual character.



[These engravings have been taken by an instrument and correct measurements from the casts.]

22. Individuality, the faculty of perceiving separate or distinct existence—individual beings—substantives.

This organ is situated on the lower part of the forehead, between the lower part of the eyebrows. It comes early into action, particularly in children: infants in their nurses arms soon begin to take notice of persons, particularly those who notice them, to whom, at an early period, they return their smiles.

Every one who has the opportunity of seeing children cannot fail to remember their early notice, which is owing to the fulness of this organ; in those not so fully developed, the reverse will be seen; many are and may be

seen who take little or no notice till much further advanced in age.

The love of variety, or curiosity of seeing new things, seems woven into the frame of persons having this faculty large. We usually speak of it as one of Nature's levities. though planted within for the solid purpose of carrying forward the mind to fresh inquiry and knowledge: strip us of it, the mind, I fear, would doze for ever over the present page, and we should all rest at ease with such objects as presented themselves within the province where we first drew breath. In youth and in man, it becomes powerfully useful to them, being the organ that excites curiosity, observation, and assistance in the acquirement of knowledge. Many persons are met in society, who know something in almost all the arts and sciences, and who are never at a loss to speak on such subjects, though not deeply; such persons may be called abridged encyclopedias, a term which a large development of this part of the brain justly assigns to them. It is a most useful and valuable addition to a head; it is necessary to the philosopher, poet, artisan, and to the acquirement of every branch of art and science. When combined with Locality and Eventuality, it assists the botanist, mineralogist, and naturalist. Animals possess the faculty large.

23. Form, the faculty of perceiving configuration—representation—shape.

This organ, when largely developed, is one of the most useful to the artist, mechanist, and every branch of trade or profession, giving power to discriminate and judge of forms. It is one that is readily observed; when largely developed, the eyes appearing wide apart; when so, the

eyes are pushed out laterally, giving an appearance of great width to the bridge of the nose. It is a very important acquisition to the amateur, particularly to those who collect paintings, sculpture, or any description of the works of art.

Animals have it large: some dogs, and the elephant have given striking examples of their knowledge by this faculty. It varies very much in animals and in man: some people have no recollection of persons again, though they have seen them frequently; while others remember the figure of those they have seen but once, and that a long time before, though the knowledge of some does not show the primitive faculty, persons and other exterior objects being distinguished one from the other by Form. This faculty, in a general manner, comprehends all that which is Form, and separates it from Individuality, because, although they may be disposed to represent each being, like God, invariably under one form, yet the faculty of Individuality cannot act without the least idea of Form. The organs of Individuality and Form are adjacent, and situated in the internal angle of the orbit. The French have it large, also the Chinese. It is essential to the portrait-painter, the sculptor, engraver, and all those that make comparison of forms in their works.

Many persons, not professed painters, and even children, may be found, who are constantly scratching with pen and pencil, and cutting the forms of men and animals out of paper; in all those a great width will be seen between their eyes. This arises from the large proportion of the brain, situated on the mesial or inner side of the orbitary plates of the frontal bone. As this organ is intimately

connected with the profession of a painter, a few observations on the causes we see in their difference of style, colouring, conception, drawing, &c. may not be out of place here. To be a first-rate painter a great assemblage of organs are necessary; there must be Form, Imitation, Constructiveness, Colour, Ideality, Locality, Comparison, and Causality; but how seldom can we expect to find such a combination in the same individual; and hence the great dissimilarity in subjects chosen, &c., arises from the greater or lesser development of one or several of the organs in each. The painter that has Form large will be celebrated for the accuracy of his drawing; he who has Locality will devote his talents to landscape painting; he who has Ideality will aspire to the more sublime subjects. and often paint allegorically; he who has Colouring may be celebrated for the beauty of his tints, but condemned for bad drawing; with Constructiveness, he will finish with the delicacy of hand we see in the Flemish school; but will sometimes, unless endowed in other respects, give an appearance of stiffness and laboured execution. While we admire their handiwork, we often lament that it has been so ill bestowed. There are a thousand other observations, but it will be needless swelling the page with more of them; let an able phrenologist see a painter, he will be at no loss to speak of his favourite subjects, his powers of conceiving, copying, &c. &c.

24. Size, the faculty of perceiving idea of dimensions—bulk—magnitude.

This organ is situated immediately under Locality, on the inner angle of the eyebrows; and, when largely developed, gives a heavy appearance to that part of the brow. This faculty was not for a length of time considered as fally established; but from the great collection of casts made, also observations, no doubt remains in our minds now as to its existence or situation, having a great number of casts with it largely developed, and who are known to possess great accuracy in judgment of size and dimensions.

Many persons are seen, who have great facility in estimating size, and in whom the powers of distinguishing forms and relative position are not equally strong; that part of the brain mentioned as the situation of this organ has been observed to be very large in the whole of them. The examples seen, and the great number of casts we have collected of it, with the facts proving the same, leave no doubt of its being now fully established, and the situation of it.

We have met with many persons who have great power in judging of measurements; they will give the length, height, or size of any object, with great accuracy: many persons in the country will give the size and quantity of land in a field in the same manner: such persons will be found to have it largely developed.

25. Weight, the faculty of perceiving momentumimpetus-force-resistance.

This organ has hitherto been spoken of as conjectural; the observations made, and the casts taken, not being heretofore sufficient to pronounce with certainty on it. A great number of casts having been taken of those known to possess the power of judging of weight and resistance, finding the organ largely developed on the whole of them, no doubt remains of the organ or the situation of it, which is near the organ of Size, under

Locality; and when this and Size are largely developed, they give a heavy overhanging appearance to that part of the eyebrow. Persons who acquire great facility in judging of momentum or resistance, of friction, and in mechanics, are observed to possess the part of the brain lying near the organ of Size largely developed. We have the casts of several captains, and those known to have excellent judgment in the navigation of ships, in calculating the power or resistance the ships meet with in a beating passage, in stemming, as they state, tides and currents, in readily pointing out on a chart a ship's situation, and in reckoning a ship's way in a beating passage, have this organ large: hence, from the great number of observations made, and from the number of casts taken, no doubt remains as to its being now fully established, and its situation being as above.

Dr. Spurzheim, although speaking of it, in his Observations sur Phrénologie, as conjectural, always spoke with confidence of there being a distinct organ which takes cognizance of weight, resistance, friction, &c.

We find this organ largely developed in many of the pugilists, particularly those who have been successful, and which seems highly requisite to give them power to judge not only of the force they have to resist, and to parry off, but also the force of the blow they intend to give. Locke says, a man of courage, who will parry, has the odds against a moderate fencer.

... 26. Colour, the faculty of perceiving hue—dye—tint—colouring.

This organ is situated on the middle of the eyebrow, and, when large, it rounds the arch of it; and which con-

figuration of the organ is more certain than when the arch is direct in height and developed obliquely to its external angle; so that the external angle is more elevated than the internal. Several of the metaphysicians were aware that a person may have very acute vision and yet be destitute of the power of distinguishing colours; but habit and attention have, as usual, been adduced to solve the difficulty. Observation shows those who have great natural powers of perceiving colour have a large development of that portion of the brain situated as above stated, and marked 26 on the bust; while those who cannot distinguish minute shades of colour have this portion of the brain small. The faculty of this organ is to perceive colours and their shades; it gives what is called taste in their arrangement. Dr. Spurzheim says, the preceding faculties cause us to know the qualities of exterior objects in a higher degree; the colours, although they contribute equally to that knowledge, and to distinguish the shape between them, are yet lesser requisites. In speaking of the senses of sight, Dr. Spurzheim states that the sight is not sufficient to feel the harmony of colours, or for explaining the talent of colouring of a painter. It is true that the eye causes the light and shadow to be known, and they are affected agreeably or disagreeably; but they do not perceive the affinity between colour, or the harmony or want of harmony. . Some persons are deficient of the faculty of perceiving certain colours. Dr. Spurzheim speaks of a family that could not distinguish black from white; Dr. Unzer, of Altona, could not tell a green from a: blue; he also met with a person in Dublin, others in Edinburgh, that could not distinguish brown or green from scarlet; yet the whole of those persons were very

ciever, of mechanical businesses, and had acquired a knowledge of other qualities and objects of dimensions, forms, &c. In general, there is no proportion between the sense of sight and the faculty of colour, not more than between sight and the power or judgment of configuration, or that of size.

This faculty is more active in females than in males; in some nations more than in others. Some of the eastern people possess it in a high degree, which is manifested by their love of colours. It is this organ which makes the sight of flowers and of a meadow well enamelled so agreeable to the sight of some persons. It is also the faculty that denotes the flower-painter, the good colourist, the enameller, dyer, and, in general, all those who are occupied in the use of or connected with colours: but a distinction in this faculty is requisite like that of all others; the difference there is between one of great activity, and one less active or in good taste: it also produces the harmony of colours amongst them.

27. The idea of relation of place—relative position—local distance.

This organ is situated on the inner parts of the eyebrows on each side of Eventuality and Individuality, and when large gives a prominent fulness to that part of the eyebrow. This faculty is one soon manifested in children, and very early shown by them. Infants, as soon as they can walk, are to be seen passing by several rooms, and going to the one destined for their nursery; also to their early selection of their toys and articles of dress, which they consider as their own, which they have had on, or used, or played with; and, if watched in children, it is to be seen very

active. When large, it gives great power in memory of places.

Dr. Gall, though he had good eyes, could not discover places where he had been before (the want of the faculty may be seen in the cast of him). One of his fellow-stadents, Sheidler, historian of Vienna, when a boy at school, had a surprising faculty of recollecting localities and particular places. Sheidler has a large development of this part of the brain, as may be seen on the cast.

The faculty, when very large, gives a desire to see different places; it particularly notices localities, gives power in perceiving space and distance to the practical geographer, and is a powerful ingredient to the endowment of a genius for landscape-painting. The expert landscape-painter, having it large, by looking attentively at natural scenery which he conceives would make a good subject for a picture, can go the length of trusting entirely to his organ of Locality, without taking the slightest memorandum of the relative positions of the objects. This organ is said to be developed in animals (the horse and dog largely), and gives them the power of knowing their dwelling-places, and becoming very active in certain seasons, causes them to migrate. Those persons having it large feel great pleasure in reading voyages and travels.

It is to this faculty, when large, combined with Eventuality and Individuality, that we owe the impatience of the desire for travelling; the passion is in no way bad, but as others are, in its management and excess. Order it rightly, the advantages are worth the pursuit, the chief of which are to learn the languages, the laws, customs, government, and manners of other countries; to acquire an urbanity and confidence of behaviour, and fit the mind more easily

for conversation and discourse; to take us from the tracks of the nursery, and to show us new objects, or old ones in new lights, by taking the variety of Nature, to know what is good, and by seeing the difference of so many humours and manners, to look into ourselves. Such will be the desires of this combination of faculties when largely developed.

28. Number, the faculty of perceiving quantities—multitude of units—calculations by numbers, as two, ten, twenty, &c.

This organ, when large, gives a fulness at the external angle of the eyebrow. It is one of the faculties that has occupied the attention of the phrenologist-by some being considered to give extraordinary powers in arithmetic and mental calculations; and by others, mathematics. Of mathematics there are numerous examples to prove it, of those who have shown great powers in that science, who are very largely developed at the situation of this organ. Numbers appertain to the sphere of the activity of this faculty, which consequently includes arithmetic; but that of mathematics, is the calculation applied by it with grandeur. The examples are very numerous, proving the establishment of the organ. Those having it fully developed will be found to possess a fulness at the external angle of the eyebrow, at the part marked 28 on the bust; it is situated by the side of Order, and near that of Time, by which, when large, particularly Order, it is much assisted.

The casts of Sir Isaac Newton, Mr. Airey, G. Bidder, Zerah Colbourn, and several gentlemen who have obtained the honour of senior wrangler at Cambridge, and many others, known to possess powers in mathematics and calculations by figures, have this organ large.

29. Order, the faculty of perceiving method—arrangement—system.

This organ, when large, gives a fulness to that part of the eyebrow beside the organ of Number, giving to it a sort of squareness of form.

Many people are remarkable for the attention they pay to the arrangement of their domestic concerns; for the order in which furniture, books, &c. are kept. They are distressed to see any thing out of its place, and are actually sensible of all the comforts of local arrangement and order; others again present the very opposite appearances, and are lost to all the advantages which arrangement bestows. The latter will have the organ small; the former large.

Order supposes a multiplicity of objects; but many have the idea of several objects and their qualities without considering them in one order. Some persons are unhappy if there is no order in their apartments, at table, and in every other situation; and there are some that derange the objects of their apartments only for the pleasure of new arranging them. Order may be applied to all other ideas of Dimension, Form, Colour, Time, &c.; it assists much in Numeration. This faculty is not to be confounded with the philosophical arrangement of ideas; but it belongs to the classification of objects after their exterior signs; it also gives pleasure in seeing collections complete.

In making observations, we have found this organ developed in three degrees; that is, very large, rather large,

and in medium. When very large, it manifests a strong desire to see every thing in its place, and feels annoyed at seeing the most trivial thing out of its proper situation; and if Combativeness be largely developed they become irritated, often feel and express anger at seeing them so. The fine arrangements we see in some collections is the result of this state of the organ. When rather large, the individuals so organized feel strong desires to see things in their places, have good arrangement; but are not so particular, often leaving things for the morrow to put them into their places: persons thus organized feel a dislike when others attempt to arrange their papers, books, or things in their own private studies or rooms. Others, having it in the medium, feel a desire to see things in their places, but seldom think of putting them so; while those having it small are very careless where they lay any thing out of their hands.

30. Eventuality, the idea of perceiving phenomenon—visible quality—events—facts—new appearances.

This organ, like that of Individuality, is situated in the centre part of the forehead, between the upper part of Locality, immediately under that of Comparison.

This organ has for some time been considered as an extension of Individuality. Dr. Spursheim, having made extensive observations, calls it Eventuality: the correctness of the name, and the functions he gives, we can, by a great number of casts taken, and facts collected, prove the correctness of the same.

Those having this organ largely developed are watchful cheervers of the passing events, also collectors of facts, but not always going deeply into them; that depending

on the state and manifestations of many of the other organs. When very large, it excites a strong desire to know somewhat of every thing that is passing, and takes such means to gratify the desire as those having it small never think of. Many persons subscribe extra to have the periodicals they read immediately after publication; others manifest equal desire to see the papers of the day, and even have them to their bed-rooms immediately they arrive; many, when travelling, upon arriving at an ina, inquire immediately for the latest papers, and feel uncomfortable till they obtain them. Individuals thus organized feel annoyed and irritable at any one's getting the papers and periodicals before them. The general tendency of the organ, when largely developed, is that of seeking early intelligence, and looking to the events and all that is passing. Those anxious to have the newspapers, periodicals, novels, and books they read, early after publication, will be found to have this organ large.

We have a great number of casts, taken from known characters, illustrating the above observations to a high degree. We have two casts of individuals who have such a desire for reading the newspaper, that they are always on the watch to obtain it, means having been taken to prevent their getting it; but so watchful does the activity of the organ appear to make them, it is seldom the means succeed: one of them has even been known to go into the garden after obtaining it, and sit under a bush in the west to gratify his desires to read the paper first; the other, when a youth, has secreted it till he could get privately to read the same.

Mr. Wyndham, Fox, Ponsonby, and Burke, all have this organ very large; they manifested the power of remarking on the passing events in an extraordinary manner. Fox's History of James the Second is a remarkable illustration of the activity of his notice of events. Many of the leading characters of the present, day have it largely developed. It is a most useful organ to the statesman, barrister, and all those engaged in or interesting themselves with public matters, either in the state or society; for when largely developed in individuals, they notice the incidents and events passing before them, which others, having it small, quite overlook, as it is supposed. But it is the largeness of the organ that causes the activity in one, and the smallness of it in those that overlook and pass by the events of the day with so little notice.

There are some men who have summary ideas of all human knowledge and events, that interest themselves in any and every thing appertaining to arts and sciences, but who do not study them to the bottom; but know enough to speak with facility on them: they speak and relate well, and are men to whom society give the name of brilliants.

Persons having it largely developed know all that is passing around them, and are fond of being relaters of all they know.

31. Time, the idea of perceiving duration—space—interval—season—periods.

This faculty is situated on the middle line of the forehead, over that of Order, running obliquely from Locality, and when large seems to form a continuation of the latter, the outer part of it being near to Melody.

From numbers of casts taken from those known to pos-

sess the power of judging time accurately, also from numerous observations, no doubt remains of its establishment or situation. It has the power of conceiving time, and remembering circumstances connected by no link but the relation in which they stand to each other in chronology, and is very different in different individuals.

The nature of Time is essentially different to Number and Order, and may be considered without number; two days ago, yesterday, to-day, to-morrow, the day after. &c. thereby indicating a continuance of a succession of days, without counting their number. Order relates more to objects, and Time more to phenomena; Time includes the notion of continuance, of succession, or of simultaneousness. This organ being situated above that of Order, and being so connected with it, receives assistance from Order, and Order assistance from Time, acting very much together. In observations on those two faculties, they should be considered as generally acting more together than separate, though many instances may be seen of Time by itself, and Order by itself. It is to be observed, many persons have good recollections of time without any arrangement or order of it, speaking of dates or periods of time without any particular connection; while others, speaking of time or date, are always in the habit of connecting it with circumstances, or particular periods or dates, or both; in the latter, Time will be connected with Order, and both large; but in the former it will be seen large, and Order small. Many are to be observed, who, upon meeting with persons they have seen before, will, upon saluting one who does not recollect them, say, "I saw you so and so, at such a time and place;" those persons, by a Phrenologist, would be seen to have Time and Locality large. A remarkable illustration of those two organs acting together may be seen in the cast of the head of Tilney Matthews, who had the extraordinary faculty of recollecting the persons who visited him, and of stating the times, with correctness, they were with him before. A medical gentleman, who was frequently in the habit of seeing him, stated it as a most extraordinary circumstance, that he would not only tell him of the year, month, or day, but of the hour of the day of his visiting him, and place, which, upon a reference to his list of visits, he found so to his astonishment; a reference to the head will bear out the circumstance phrenologically.

This faculty will be found large in those who are considered as good judges, and also those considered fine performers and composers of music (to which faculty it is closely situated). The infant Lyra, and Miss Schauroth, the extraordinary piano-forte performer, have this organ and Melody very large.

32. Melody or Tune, the idea of perceiving music-sweetness of sound-harmony.

This organ is situated at the lateral part of the forehead, and, when largely developed, it gives a fulness to the part situated between Numeration and Constructiveness. It is one in which those first making observations on Phrenology, and even some who have given the science much consideration, have made mistakes in their observations on persons, particularly when the persons have Numeration and Constructiveness large.

Many conceive that it gives the power of performing when manifested very large, but which is not always so,

that being accomplished in combination with other organs also fully developed; but those having it large, without having the power of performing, will be fond of any kind of melodious or harmonious sounds, and music. Hence, its more proper name appears to be Melody.

It is found large in all great composers of music, as Handel, Haydn, Rossim, and all great musical performers, in whom it will be combined with Constructiveness, Ideality, Individuality, Order, Time, and other organs, largely developed.

Dr. Gall called it the organ of Music, but Dr. Spurzheim thinks that music is not the result of a single power, (or faculties,) but of two, the faculty of melodies and of time. This difference is often very marked, and some musicians play or sing in an harmonious manner, or put the tunes in conformity one with the other, but do not appreciate the value of time; whilst others observe the cadences, but make faults against the harmony of the tune: the latter will have Time full and the former small, with tune.

He also states, that it is generally thought that the music of man is the result of his ear; though it must be admitted there is no proportion between the talent of music and the perfection of hearing. Dr. Spurzheim, in treating of the sense of hearing, says, "I have demonstrated that we should never form a judgment by the ear at the commencement of music, nor the compositions of great musicians when hard or difficult, nor the particular ideas by which the composers are distinguished from the others; this must result from absolute knowledge, or innate talent for that sort of manifestation."

He says, that he has equally proved that the singing of birds is not more explained by the ear; as a singing bird, bred and nourished by a bird that does not sing, will still sing proper to his species. Many persons have a fine voice, but little taste for music; while others have no voice, but excellent abilities for music: the ear and voice are for music; that which for the power of colour are eyesight and the hands; the ear hears the tone, the voice produces the singing, the same as the eyes seeing the colours, and the hand putting in the picture; but the memory, the judgment, and the invention of tunes and colours, are the attributes of interior powers.

33. Language, the idea of perceiving human speech—distinct tongues—style—arbitrary signs—words.

The special faculty of this organ is to enable us to acquire a knowledge, and to give us the power of using artificial signs or words. A low degree of the organ may enable a person, by great efforts, to learn languages; but a full development is indispensable to a fluency of style in speech or writing. This organ is considered by the prominence of the eyes: it will be found large in philologists and orators. The prominence of the eye is produced by a large development of this faculty, the brain resting upon the upper orbitary plate of the eye, and pressing it downwards, gives a fulness to the eye, and indicates the activity of this faculty.

A great number of casts having now been taken of persons known to acquire language with facility, also to have great power in the use of the same, and of words, it is now seen that the power of the same is indicated by three different ways in the casts; namely, by a very prominent and full eye, by a very large and thick rounding eyebrow, also by the orbit of the eye being very large in

the diameter, and sometimes (though this is but rarely seen) with a combination of the different ways here mentioned.

It is certain that some persons retain the words without knowing the spirit of the language, but it seems to be the same faculty that gets the words by heart, and that which experiences the spirit of the language. This last mode of activity of the faculty, is what is called judgment in several others, that is to say, the perfect exercise according to certain degrees, to which every faculty is subject. That is why the principal fundamental points of all the languages are essentially the same, likewise the degrees of music in all nations. This faculty loves and knows the artificial signs, and their reports or construction, the same as the faculty of colours and their combinationsharmony or discord. It gives the name to the signs which are set for communicating to the other active faculties. Those signs cannot be natural or artificial, because this is a degree of the whole faculties being in a state of activity manifested by the external signs which are understood by all beings endowed with the same faculty.

Dr. Gall, when a boy, had often to lament and regret the difficulty by which he fixed words in his memory; and, lamenting over his own case, he naturally observed other boys who learnt by heart with great facility; in those last he noticed the eyes to be prominent, and somewhat depressed from the eye-brows; the cause of this has been explained.

We are generally wrong in considering the faculty with which a boy acquires a language, as an earnest of his future abilities; in the race after life, the best scholar will often be far outstripped by him whom the pedagogue called a dolt and a fool, and lashed for being so. Phrenology shows us the cause of this; a boy who will be admired in the future man, with a defective organ of language, will in the first years of his life never rise to mediocrity; whilst another, with a little Individuality and good Language, is looked upon as a prodigy, and elevated above him, who for sound common sense and judgment is ten years his elder. The present system of educating all children upon the same models, is not more absurd than it is unjust.

The two next, Comparison with that of Causality, are two of the most important in the whole series; and, when fully developed, with good combinations, form one of Nature's noblest works—man in his most enlightened state.

There is not a more pleasing sight in history, than that of a man of good reflection and understanding, who, in spite of all the changes of fortune, remains the same in every period of his life, and in every thing he does; so our pity is excited in many ways, when we see in good men errors of understanding, which, according to the laws of nature, cannot fail of bringing on them pains. We frequently meet with these fallen angels in history, and have to lament the weakness of the moulds that human reason employed for such instruments. The man of sound reflection is seized with sentiments of compassion when he sees such an unfortunate on the point of deviating from the path of reason, and which he feels the want of strength any longer to pursue—who

"Sinks in the soil, with matter to compose, And self and nature's composition shows."

34. Comparison, the faculty of judgment how things

differ from something else—of comparing by analogy—similitude of relations — comparative estimate, not positive.

This faculty is situated on the centre of the forehead, on each side of which is Causality. It is the first of the reflecting faculties, and when large shows an elevation or fulness on the middle part of the frontal bone. Dr. Gall states, that there are men, who, in their conversations and discussions, have recourse to drawing comparisons and analogous examples, before that of philosophical argument or reasons; in those persons he states that he found an elevation in the middle part of the frontal bone. Good preachers, that speak in an intelligible manner by examples and parables, have this organ large; and speaking of celestial things, it must be comprehended by allegories and parables, and by all sorts of comparison between that which is spiritual and that which is terrestrial.

This faculty compares the actions of other faculties, knowing their difference, similitude, or their identity; it loves comparison, and produces the figurative metaphorical sense of artificial languages. Dr. Spurzheim says, in this manner we know the activity of the faculty in simple and individual languages, and in those of other nations; yet it must be observed, that this faculty does not determine the comparison, but that those are according to the knowledge which the individual possesses; when this faculty, with Form and Colour, is very active, it searches for comparison in forms and colour, in facts, &c. The organ of Comparison produces the spirit of combination, generalism, and abstraction, and is essential to the discernment of philosophy; Comparison, Individuality, and Language, combined, give readiness of apprehension, and fluency of

speech; but unless Causality be also large, the reasonings are not consecutive, and the views not comprehensive. It is generally large in the heads of popular preachers who illustrate their subjects by similitudes, examples, and parables. By suggesting comparisons, it greatly aids Wit.

35. Causality, the faculty of judgment of the agency of a cause—quality—effects—reason—reflection.

Causality is the other reflecting faculty; it is situated on the superior part of the forehead, on each side of Comparison and near Gaiety. This action of thought appears to be one of the most important of all the faculties, particularly of the reflective, when rightly understood, which is a power to invert the mind upon itself, and hold it in view, like any external object,—to examine by this medium all its actions, relations, and analogies, in the pure medium of nature, unadulterated by any affections of the will, or any substitute of thought or prejudice of local circumstances provided by education, instruction, and good combination before the line, as seen in the figure.

"To turn thought inward, force back the mind
To settle on itself, the point supreme of manhood."

An able author, in treating upon the actions of good reasoning power, says, "Reason is the gift of the Supreme Being to mankind; a glorious knowledge of human nature, and one of the chief criteria which so eminently distinguish man from the brute creation. By reason we mean that peculiar power or faculty of the mind by which we connect, abstract, and compare our ideas or thoughts, as occasion offers; for the purposes of right inferences and just conclusions." Happy are those having a good

proportion of this organ, Eventuality and Comparison; in good combination of the intellectual organs, they will reason prospectively, supporting the same by facts; while those having it largely developed, and the other two moderate, particularly Eventuality, speculate largely, and at times commit great errors in their conclusions, for the want of proper attention to facts to support their arguments. What science, previous to Phrenology, could point out what caused those differences in different individuals?

Scientific men carry reflection to operate on separate and single radii of the circle of knowledge; the astronomer reflects on the course of the laws of astronomy; the chemist reflects on the radii of matter and motion; the politician reflects on the interests of a nation; and the moralist on the prosperity of the community as framed on the religion, laws, and usages, by carrying reflection through all the radii of the circle of nature, to digest science into sense, and generate intellectual power by reflection. Young calls it the lunar light of science, whose reflected light borrows all its ideas from others, and generates power and the solar light of sense, whose internal heat of genius produces ideas of its own, to triumph over brute instinct, and elevate man to a perfectible agency in discovering the whole truth as a medium of executing the whole of good; and goes on to discover the identity of nature's first principles, of causes, essence, and power, without which, Spinosa says, man has no use of his understanding, and can never execute the great purposes of his being-the improvement of sensitive good on this planet of the earth.

This faculty is a principal ingredient in the great philosophical understanding; it gives deep penetration and

strong perception of consequences in argument. Dr. Spurzheim says of this faculty, hence it seems to me, that this special faculty examines causes, considers the relations between cause and effect, and always prompts men to ask why. Individuality makes us acquainted: with objects; Comparison points out their identity, analogy, or differences; and Causality desires to know the cause of all events: he states those three faculties largely developed, as forming systems, drawing conclusions, inductions, and pointing out principles, and laws, constitute the true philosophical mind and understanding. There has been no instance that has come within the notice of the Phrenologists, where this faculty was largely developed, with good combination, when its powers in the individual have not been great, and when small there is a difficulty in drawing correct conclusions, and an incapacity of thinking deeply: when large, it gives the power of what is called metaphysical reasoning or argument. It is the last of the series of organs.

OBSERVATIONS.

THERE are some persons who are always weighing reasons on one side and the other, without ever deciding between them: such persons are mostly sceptical to any new science; they will scarcely condescend in their opinions (often openly avowed) to allow persons who hold an opinion different to theirs to be able to draw proper conclusions, even when facts upon facts are exhibited to their view; even under such circumstances they will say, with an expression of doubt, we must have more

proof to convince us of what is stated. The answer of the Phrenologist is, search diligently, and you will find, as we have done; and if the facts will not bear out, as stated, then deal out the tainted arrow or the disbelieving smeer. On facts the fabric has commenced; on facts alone the premises will be completed, and take its stand: by facts, and not words, prove the science wrong, and its supporters in error; for unless strong facts are produced against it, all opposition must prove futile and weak, and the opposers, without facts to support them, will ultimately find themselves weak in their arguments, if not so in their intellectual mansions. Pope says, the wise man stands between them—

"With too much wisdom for the stoic's pride,
With too much knowledge for the sceptic's side."

FREE AGENCY OF MAN.

Many persons, but more particularly those under religious feelings, have, at the first view of the science, thought that the cultivation of Phrenology would interfere with the free agency of man; some, without giving themselves the least trouble to examine its merits, or the facts upon which the supporters of the science rest their claims, and boldly venture to advise a consideration of it. For those of religious feelings, it is directed to their consideration and attention to think and consider, if they can conceive it at all possible, that a knowledge of the works of God can lead to harm; and for those who think it will interfere with the free agency of man, the following observations are submitted to their consideration.

Man's life is a line that Nature commands him to describe upon the surface of the earth, and it is current at



this day for an incontestable truth, and believed by a great many people, otherwise extremely enlightened, and who have been incapable of imagining how man could either merit reward or deserve punishment, if he was not a free agent. An idea has been widely spread, that if all the actions of men were contemplated as necessary, the right of pursuing those who injure their associates would no longer exist: but nature unquestionably appears to distinguish man from all other physical beings, by assigning to him the special privilege of a total independence of all other animals.

It is the actual essence of man to tend to love his wellbeing; to be desirous to conserve his existence: if all the motions of this machine spring as a necessary consequence from this primitive impulse-if pain warns him of what he ought to avoid-if pleasure announces to him that which he should desire—if it is in his essence to love that which either excites delight, or that from which he expects agreeable sensations, to hate that which makes him fear contrary impression, or that which afflicts him with uneasiness, it must appear that he will be attracted by that which he deems advantageous; that his will shall be determined by those objects he judges useful; that he will be repelled by those beings which he believes prejudicial. It is only by the aid of experience that man acquires the faculty of understanding what he ought to love,--of knowing what he ought to fear. Are his organs sound?—his experience will be true; are they unsound? it will be false; the sight of an agreeable object, or its idea, determines his will to set him in action to procure it; but if a new object, or a new idea, more powerfully attracts him, it gives a new direction to his will, annihilates the effects of the former, and prevents the action by which it was to be procured. This is the mode in which reflection, experience, and reason, necessarily arrest or suspend the actions of man's will; without this, he would, of necessity, have followed the anterior impulse which carried him towards other desirable objects. In all this he acts according to necessary laws in nature, and nothing can tend more to the happiness of man than the study of human nature in all its forms, and more particularly if well applied, and under the guidance of justice and morality.

Man should learn to know that happiness is an emanative quality, formed by reflection, and that each individual ought to be the sun of his own system, shedding around him its genial rays, constantly supplying the requisite heat to enable him to put forth kindly fruit. Far from hindering the cause of virtue, morality, or society, an impartial examination of the principles of Phrenology will show that its objects are to restore truth to its proper temple, to build up an altar whose foundations shall be consolidated by morality, reason, and justice; whose homage, flowing freely, will open a new era, by rendering it a general belief, that happiness, the true end of man's existence, can never be attained but by promoting that of his fellow-creatures.

Dr. Reid says, philosophers boldly pursue and endeavour to diffuse the cause of gravitation, and other phenomena, which are called laws of nature: we know not the limit which has been set to human knowledge; and our knowledge of the works of God can, under such impressions, never be carried too far.

It is impossible to speak of the actions of men, although the organs by means of which their minds act are known; because man has free-will, and may perform the same action from many different motives; but, in general, men will act according to the strongest propensities of their nature.

The system does not lead to the doctrine of necessity, or teach that human actions are the result of natural laws, operating independently of human will. What right had the metaphysician to sit down in his narrow cell, and take himself as the standard of all mankind? And with what shadow of justice could the critic attempt to condemn that which he did not understand? None of the opponents of the system have ever pretended to be tolerably well versed in it; if they had, their writings would have belied their assertions: a few of them have ventured to say, that so far as their observations went, they found as many of the facts in contradiction to, as in support of, the system; but when pressed by the supporters to specify and show these anomalies, they have hitherto been unable to produce them. The Phrenologist, who for many years has studied the system, and never seen any one fact in contradiction; who is so thoroughly convinced, from innumerable observations, of its truth, and foundation in nature, that he can as well conceive a man seeing without eyes, as manifesting a peculiar faculty without corresponding development of the organs which bestow that faculty, is at full liberty to say, (and cannot be blamed for his conclusion,) that such pretended anomalies are either mistakes arising from ignorance and want of accuracy in observing, or they are the offspring of some improper motive.

ANALYSIS OF HUMAN ACTIONS.

If one could suppose a society of men so situated in this habitable world, that their various feelings, passions, and sentiments could be easily gratified, either by the possession of what was pleasurable, or the removal of what was painful, there would be reason to conclude that human life would be uniformly serene, peaceful, and free from many passions which arise from the impediments which are placed in the way of our natural wants.

The law of this world, however, is, that man must procure his food by the sweat of his brow. By Divine Law obstacles have been placed between him and the objects of his most natural desires, in order to urge him to the active employment of those faculties, on the perfection of which our future happiness most probably depends. Many of these obstacles arose out of the natural construction of the globe itself; many others are owing to the artificial constitution of the society in which we live; but by far the greater portion are from disobedience to the natural laws -the laws of God; many also arise from the mistaken view taken by our governors and legislators in framing the positive laws made for the government of states, kingdoms, and society; and hence many new and powerful feelings which agitate the human frame arise, producing confusion of idea, and frequently insanity.

From what is here stated, it will appear that mental improvement is the basis or foundation of civilized society.

This must be obvious to every one capable of sound judgment; for if the human race were actuated merely by sensual appetites, and felt the influence of no power superior to that which instinct gives them, the business of legislation would be restricted within a small compass,

and the arrangement of its affairs would require no extraordinary skill. If mankind entered the world simply to gratify the first calls of nature, or were endowed with capacities sufficient only to perform those actions which are requisite to supply their corporeal wants, promote the increase of their species, and render their existence subordinate to some higher race of beings, the laws of government would be few in number, and the vicissitudes of society would never appear complex, but the administration of its affairs would be uniform and easy. In such a case, it would be absurd for the senseless multitude to claim any share in the constitution of their own laws, or to assume the prerogative of electing their own governors. But non-resistance and passive submission to the despotism of those individuals who chanced to possess a superior degree of muscular strength or instinctive sagacity, would doubtless appear to harmonize with the whole circumstances of a destiny so unenviable and degrading.

But there is obviously a principle in man whose qualities surpass the corporeal system, and from whose energies the commotions which agitate the world arise. The faculties of sensation, of which man is possessed in common with inferior species, are simply the first elements of his constitution, and should be regarded only as forming the infancy and childhood of his being. He is likewise inspired with sympathetic affections and with desires after enjoyment, which the objects of sensation can never gratify. His imagination rises on the wing of inquiry, and surveys the universe. Contemplation excites curiosity, and forms in his mind innumerable associated ideas; he learns to discriminate between good and evil, and treasures up in himself a fund of knowledge; he partakes of the delights of wisdom and virtue, ascertains the

superiority of reason over natural instinct, and is solicitous to advance in his attainments towards perfection. In what then consists the true dignity of human nature, but in the culture and improvement of these faculties?

To obtain wisdom-to improve in virtue-to be useful to his companions—and to be happy in himself, are, doubtless, the most legitimate and dignified pursuits of man; but when the mind is neglected and debased, his worth then is insignificant, and his condition much to be deplored. Every institution, therefore, which is designed for the government of man, ought to be founded on the essential principles of his nature, and rendered subservient to the progressive improvement of his mind. Those are the wisest of human laws, therefore, which ensure the freedom of mind, and lead to the cultivation of his faculties: but whatever regulations impede its progress, confine its knowledge within narrow bounds, or remove the means of cultivation beyond our reach, are allied to the interests of tyranny, and often produce insanity, and therefore should be classed amongst the curses of human life. A visit to our lunatic asylums previous to the Parliamentary Inquiry will prove that it is from correct reason that man derives his acknowledged worth in the scale of being, and by its improvement alone can he arrive at the true end of his existence, or obtain that honour and happiness which divine munificence designed him to enjoy.

INSANITY.

THE attention of the public having been drawn, within the last few years, to the subject of insanity, in consequence of the investigations that have taken place into the various hospitals for the reception of lunatics and the private establishments, induces us to offer a few remarks, with a view of still drawing some further attention to the treatment of those labouring under that dreadfully-to-belamented disease, or what we consider as best defined by the diseased manifestations of the mind.

Inquiries into the deranged manifestations of the mind must become interesting to every class of society; for in its attacks distinction is out of the question; all classes are subject to it—the rich, the middle, and the humblest walk of life become its victims. It ought, therefore, particularly to engage the attention of physicians and medical men. It has been considered as almost endemical in Great Britain, but that we consider as an erroneous opinion; for upon making our visits to Paris, we found an immense number of insane patients in the hospitals of the Salpietre, the Bicètre, Charenton, Rouen, and other places, to the extent of some thousands, clearly demonstrating that other countries are not free from its attacks.

Every one who has observed the deplorable condition of insane people—who has witnessed some of the disorders which take place at times in their feelings and intellectual manifestations—who, for instance, has seen that some individuals feel the most distressing anxiety, and fancy themselves objects of human persecutions, while others consider themselves victims of divine vengeance—who has remarked, that often all the best principles of the human mind are perverted, and a pious Christian changed into a drunkard and an abandoned felon—that others, naturally of mild and pacific dispositions, appear during their attacks to be inspired by the demon of mischief—that some of known probity feel a blind propensity to steal—that others feel a ferocious inclination to commit to the

flames every thing of a combustible nature, feeling it as by divine command; others to imbrue their hands in human blood, extending even to their wife and offspring, others to offspring only-that modest females are seized with feelings of a loose libertine—that wretched persons think themselves bishops, popes, lords, ministers, kings, and emperors-in short, every one who has observed that insane people often lose not only bodily health, but also their moral and intellectual character, and, in consequence, their personal liberty, and sometimes the figure of the human shape, or skeleton of their species, is all that remain, must wish for some improvement in their treatment. Moreover, if we reflect that insanity makes no distinction in sex or condition of life, that no one is secure from it; the labourer, the sober labourer, and his master who indulges in scenes of luxury, are all liable to this affliction, some, certainly, more than others. Hence the importance of proper treatment; humanity rendering it a point of duty to contribute, to explain, to elucidate any means within their power to lessen the malady, and, if possible, to restore them to a proper condition of mind.

The causes of our ignorance in insanity heretofore have been very numerous, which, to a certain extent, are removed by those who have paid attention to Phrenology; the examination of the subject having also been considered as extremely difficult, often being considered as beyond the medical profession, at least, it has been confined to a certain class, or few, who have endeavoured to cast a veil over their mode of practice, endeavouring to veil it in a cloud of mystery, and hence the reason why so little has been done to teach medical pupils that little which has been known; therefore, the notions of insanity which any one

acquired depended upon his own application, and more often to accidental circumstances. At the universities, the medical students have been obliged to attend lectures on the diseases of animals and on the veterinary art-but who has heard of lectures upon the diseases of the human mind at the universities? Although so important, it seems to have been totally neglected at those places. In the later ages, that is, within the last thirty years, a little more attention has been given to the influence of the organization on the manifestations of the mind, which has undergone examination with somewhat more attention, and by which the brain and nerves have acquired a degree of importance which they did not possess in the estimation of the ancient physiologists. For can it for a moment be doubted, that a perfect knowledge of the faculties of the mind, and of the conditions under which they are manifested, must lead to a better knowledge of their deranged functions?

Here a fine field is open to the anatomist, by Phrenology proving to demonstration the establishment of thirty-five distinct functions of the mind, each being capable of disease, singly or in combination, the same as any one of the nerves, muscle of the body, or a limb, without materially affecting the whole or its direct neighbouring organ, many instances of which are known. Dr. Spurzheim, in his work on Insanity, feeling the importance of a knowledge of the diseased or healthy functions of the mind, says, "Thus we flatter ourselves that our anatomical and physiological investigations will become the basis of a new doctrine of insanity." Every one must agree with Haslam, in his observations on madness, "that whenever the functions of the brain shall be fully understood, and the

use of its different parts ascertained, we may then be enabled to judge how far disease attacking any of those parts may increase, diminish, or otherwise alter its functions."

Here we find a gentleman who has been the better part of a long life devoting his time and practice to insanity, telling us that when the functions of the brain shall be fully understood and the use of the different parts ascertained, great improvement in the treatment of insanity must take place. Now we ask who will dispute the point whether the brain is a single organ of the mind, or whether it consists of different manifestations of different functions of the mind? The individual that will now declare the brain to be a single organ will indeed be a bold man; before he ventures to do that, we will advise him to consult his own professional reputation, and do as we have done, collect facts, upon them to reason, and not upon theory or words. Moreover, we would advise medical gentlemen in particular to visit the pauper lunatic asylum for the county of Middlesex, and there see what has been done in classification, and that by the aid of Phrenology; there they will find pauper lunatics occupied in every kind of employment in the domestic business of the establishment, even to the cookery; carpenters at work with edgetools; bricklayers with their labourers; others managing and taking care of the stock of a farmyard; others in the cultivation of near seventy acres of land, the whole by pauper lunatics, and with much fewer servants than any establishment, having the same number of inmates, can boast of. How is it done? Is it by the old method of managing pauper lunatic asylums? Is it by any method that is laid down in works published upon the subject of insanity? No, we say boldly, it is not; but by a system of classification and judgment, which Dr. and Mrs. Ellis may almost exclusively claim as their own, aided by the science of Phrenology, by immediately classing and instantly discovering into whose hands they can intrust edgetools, or any kind of instrument or implement by which they are likely to injure or endanger others, and further, by classification in the wards, at meals, sleeping-rooms, and amusements.

From what has been stated, it must be evident that Phrenology is applicable to and highly useful in insanity, by giving a much more ready mode of exciting them to or in producing amusements for them, and by giving them occupation, choosing their occupation, and selecting the individuals so to be occupied.

To show how correct has been the view taken by Dr. and Mrs. Ellis, we shall give some extracts, written by that gentleman in 1815, during the time a parliamentary inquiry was going on respecting madhouses, or places for the care and safe custody of insane persons, with a view of better providing for them, or to ensure more care and attention to them, in consequence of some inattention and abuse having been discovered in the care of and in the treatment of insane persons. Dr. Ellis acknowledges in his pamphlet that, up to that period, his experience was but little, and therefore what he has effected, proves that his view of the subject has been correct, and his inferences have been proved beyond what he considered practical himself, at least, within such a period of time.

Dr. Ellis, in his pamphlet, after some preliminary remarks to the committee or gentlemen to whom it is addressed, says, "Foreseeing how difficult it will be to lay down a plan that will not infringe upon the liberty of the

subject, and yet keep under restraint all those whose situation requires it, that will be best calculated to expedite recovery, and yet afford the safest and most comfortable asylum for those whose reason cannot be restored, is a matter of the greatest importance to every party concerned, namely, the public, the medical man, and the insane.

"Insanity, we consider, may be divided into three states. The first, where, from various causes, a single wrong impression is so strongly fixed on the mind as to prevent the reasoning powers from perceiving the fallacy of it, and producing at the same time a constant desire in the patient to convince others of the correctness of it, and leading to such impropriety of conduct as is injurious to himself and others; this state assumes a variety of shades, as the habit of body and the passions of the mind of each different patient varies. In the next state the ideas are unconnected but not destroyed; the impressions are perfect in the mind, but the power of associating them is lost: in this state, also, considerable variations take place in different patients and at different periods. At one time they can arrange a few ideas with some judgment, and at another sink almost into idiotism. The third and truly melancholy state is that in which the mind seems to lose all power of action, and the patient exists almost insensible to the impressions of surrounding objects. The raving and melancholy, I think, ought not to be considered as distinct and separate states from the others, but the consequence only of the patients not having their wishes gratified, or their being controlled, operating differently on different dispositions and on bodily health.

"From what has been said respecting the nature of the disease it will be evident, that to overcome false impres-

sions which have taken place in the first state, and the capability that exists of connecting the ideas together in the second, can be accomplished only in the first case, by directing the train of thoughts to other subjects, and in the second, by presenting to the patients such objects as will assist them in connecting together a few ideas at a time, as a child is taught to read, by adding one syllable to another; for these purposes nothing is found so efficacious as occupation and employment, but that a great variety is necessary must be obvious." Hence the importance of large asylums or establishments for the treatment of insanity; for in great numbers of persons some are sure to be found who can contribute to the amusement and pleasure of others, which cannot be found in small societies; and, therefore, the importance of a large proprietary establishment for the rich as well as the poor must be seen to be of the first consequence in leading to tranquillity, and thereby to restoration.

Here a fine field is opened by Phrenology, which gives the power at once of seeing what will be agreeable and what disagreeable to them as an occupation; it being by this means now that Dr. and Mrs. Ellis are, immediately patients enter into the asylum, enabled to class them, and find them occupation and amusements, and that without having to wait weeks, nay months, to find out the prevailing propensity, or the peculiar talents, disposition, and temper; for an insane person having large cautiousness or secretiveness (or both), causality, firmness, and self-esteem large, or two or three of them very large, with hope small, it would take the most attentive and diligent person, unacquainted with Phrenology, weeks or months to get at the talents, temper, and dispositions of such a person; but

by the science the whole may be written down as soon as they enter the asylum, and that with a certainty of being able to act upon it; and therefore, in the first and second state, means may be taken to overcome the false impressions which they may be labouring under, and by at once proceeding to direct them to such objects as will assist them to properly connect their ideas, and divert their attention from the false notions which they have previously entertained.

From what is now ascertained, it appears that occupation is of the greatest importance in the restoration of insane persons, and in the better management of them.

Certainly, that is the case; for occupation properly administered produces natural fatigue, which produces natural rest, thereby keeping the mind from wandering over the past, and with more enjoyment of the present, consequently tranquillizes the faculties of the mind, gives a stimulant to the digestive organs, invigorates the bodily actions, and by a concatenation of results, arising out of the effects produced, leads to a much earlier state of convalescence, and, in many cases, to a more certain restoration to their proper state of mind, to their occupation, to their families, and to society in general.

EDUCATION OF CHILDREN.

In drawing conclusions on character, care should be taken in giving the age some consideration; as the same powers cannot be predicated under eight years of age as to those more advanced, and so on in progression.

At the age when children begin to unfold their ideas, and express their thoughts in words, they are such interesting and entertaining companions, that they attract a large portion of our daily attention: we listen eagerly to their simple observations—we enter into their young astonishments at every new object—we are delighted to watch their emotions—we help them with words to express their ideas-we anxiously endeavour to understand their imperfect reasonings, and are pleased to find or put them in the right. This season of universal smiles and courtesy is delightful to them while it lasts, but it soon passes away; they soon speak without exciting any astonishment, and instead of meeting with admiration for every attempt to express an idea, they are often repulsed for troublesome volubility; even when they talk sense, they are suffered to talk unheard, or else they are checked for unbecoming presumption. Children feel this change in opinion most severely; they are not sensible of any change in themselves, except, perhaps, they are conscious of having improved in sense and language. This unmerited loss of the late sympathy usually operates unfavourably upon their tempers; they become shy, silent, and reserved, if not sullen; they withdraw from our society, and endeavour to console themselves with other pleasures, and feel discontented with their occupations and amusements, for want of those which used to be at their command. Children of a timid temper, or of indolent dispositions, are quite dispirited and bereft of energy in these circumstances: others, with greater vivacity and more exertion, endeavour to supply the loss by the invention of independent occupations; but they feel angry when they are not rewarded with similar praise for their "virtuous toils." They naturally seek new companions amongst other children, or complaisant servants. Immediately the education is at a stand, for neither the

servants nor new playfellows are capable of becoming their instructors; nor can tutors hope to succeed who have transferred their power over the pleasures, and consequently over the affections of their pupils. Sympathy now becomes the declared enemy of all the authorities. What chance is there of obedience or of happiness under such a government?

Would it not be more prudent to prevent than to complain of these evils? Sympathy is our first, best friend, in education; and, by judicious management, might long continue our faithful ally.

Instead of lavishing our smiles and attentions upon young children for a short period, just at that age when they are amusing playthings, should we not act more wisely if some portion of our kindness were reserved a few years longer? By a proper economy, our sympathy may last for years, and contribute to the most useful purposes. Instead of accustoming youth early to such a degree of our attention as cannot be supported long on our parts, we should rather suffer them to feel a little ennui at that age, when they can have but few useful occupations. We should employ ourselves in our usual manner, and converse, without allowing them to interrupt us with frivolous prattle; but whenever they ask sensible questions, make just observations, or show a disposition to acquire knowledge, we should assist and encourage them with praise and affection. Gradually as they become capable of taking part in conversation, they should be admitted into society. and they will learn of themselves, or we may teach them, that useful and agreeable qualities are those by which they must secure the pleasures of sympathy. Esteem being associated with sympathy, will increase its value; and this

connexion should be made as soon, and kept as sacred in the mind, as possible.

By a study of the science, what a power will be given to preceptors and parents, who, by phrenological observations of the manifestations of the cerebral parts, will be able to judge of the different feelings and sentiments of those under their care—they will be able to judge of those who will be pleased by the smiles bestowed upon them, and of others who seek approbation by different means—they will be able to judge of those who, when they meet with any opposition or check to their pleasures or pursuits, become silent, reserved, sullen, or discontented; and of others who take every thing suggested to them as proper, without making any complaint of the propriety or otherwise of the same, but cheerfully submitting to whatever is suggested for them by their parents or preceptors. When this is duly considered and appreciated, what benefits may be contemplated to early youth! We will not venture to predicate, but certain we are, that to reflecting minds the importance of the science in the education of youth, up to and after this period, will be found of more real benefit than any observations we can offer to notice, or so small a publication can give any idea of.

From three to eight years of age, much determined or permanent character cannot be predicated, except in very extraordinary cases, where individuality, eventuality, form, and locality, are very large; under this age, the youth so developed will be very anxious in inquiry; and by repeated questions manifest a strong desire to know the uses and purposes of every thing that falls within their notice. If Self-esteem and Combativeness be also large, and Cautiousness moderate, they will show much of what is called

forwardness and boldness of manner, repeating and pressing their questions till some answer to them is made: while, on the other hand, those having those faculties small will sit for hours without any symptom or indication of having taken notice of any of the objects that may be passing before them. But in the observations made on children about those ages, many will be observed to have fine foreheads, particularly the upper part of them, and which. to the surprise of their parents and preceptors, appear to be dull in their learning; while, on the other hand, others, who appear not to have their foreheads so well developed. take the first part of their education with apparent facility Those classes of children are well worth the attention of parents and preceptors, and it may be fairly presumed that much may be done by a study of the science in this stage of youth. The former, though apparently not so, are taking in a store of what is passing before them, but which does not shew itself till the perceptive faculties are more developed. Those above mentioned will have Cautiousness, Comparison, and Causality large, and Individuality, Eventuality, and Locality but moderately developed; while those having the latter with Language large, Cautiousness, Comparison, and Causality moderate, will take the first principles of their education quick, and appear their superiors in learning, but who, to the astonishment of their preceptors, make a stand when they are put to the higher branches of education, while by equal astonishment the former become their superiors in turn, and keep the lead. What an acquisition to parents and preceptors must it be, to have the means of discovering, of attesting, and correcting the errors of youth so developed! A little study on phrenological principles of the dispositions and manifestations of the cerebral parts of youth will de this; fer, if known to be similarly developed as above, they may, by proper means, be kept from excitement, and it may be fairly presumed will not increase in the same ratio as if kept constantly active.

From the age of eight to sixteen, nearly the whole of the faculties come into action, when much permanent and determined character may be predicated. During this period, Attachment, or the want of it, are strongly manifested; much of the disposition under the influence of Combativeness and Destructiveness may be observed; also reserve, cunning, self-consequence, or the desire of pleasing by the manifestations or otherwise of Secretiveness, Cautiousness, Self-esteem, and Approbativeness, influenced as they may be by the activity of the sentimenta, or the relative proportion of the feelings and propensities. During this period, Constructiveness, Form, Ideality, Imitation, and the perceptive faculties, take an active turn, according as they may be influenced by Conscientiousness, Benevolence, and other faculties.

Feelings and proper respect for the Deity and fellowman take their first impressions and data about this period. We are also disposed to think that a careful study of the science, combined with education, will point out the means of treating youth in a very different manner than what has been heretofore; for it is a fact known, if the disposition of youth can be early discovered, how much more readily they may be treated and put forward in their studies; at the same time it should be noticed, that hitherto it takes much time to become acquainted with the dispositions of some, whilst those of others are to be readily observed. What occasions this difficulty Phrenology points out. Shew two imitividuals to an able phrenologist, the one difficult, the other easy, he will some point each out, and give the why and the wherefore of the difference.

Youth thus circumstanced are often unkindly treated. to their injury, and moved from seminary to seminary without any appearance of improvement; but who, at last, and that at no late period, astonish their parents and preceptors by the rapid progress they are supposed to have made in the latter part of their education. Under feelings of this kind the early tutors of youth are often blamed, and that at times to their injury, even though their zeal and anxiety have been redoubled to bring them on, without any probable chance of success, and without any means of knowing, or even a surmise of the cause. this, we presume, after a short time, now that the science is making progress, will not be the case; for the study and knowledge of a few of the leading principles of Phrenology will give both parents and preceptors the means of early forming a judgment pretty near their dispositions;those being known, how differently they may be treated, and thereby put forward, cannot for a moment be doubted.

Having 102 easts, which have been taken off individuals at different periods, and a very large increase having taken place, and that while they were engaged in intense studies, the increase being much greater at those parts of the head, the seat of the organs called into action by their particular studies, illustrates the observations that have been made some years past, that it would be so *; that a

^{*} An eminent Physician in 1821 stated, that he thought direction might with great advantage be given to various faculties at the same time, stating that he thought by pursuing the studies to which they applied for two or three years, they would be found to increase more than in other parts of

successful advance in education, or of particular studies, by intense application, an alteration of the head would ensue, and an increase take place in those parts excited by the particular studies, which observations are now proved to be correct; but what science before was able to refer to the causes, or even to hint at what caused remarkable differences in different individuals? Those circumstances, in our opinion, get rid, in part, of the idea entertained by many, of man being the creature of circumstance. We now entertain a different opinion, looking at the facts before us, that man, to some extent, is a free agent; and fatalism is more as a phantom than any thing in the shape of reality.

From the circumstances here mentioned, much, we consider, by management of youth at this period of their life, may be done for them, in which the study of Phrenology will assist; for a preceptor, who wishes to gain ascendancy over a youth that manifests by his development good reflective powers and sentiments, and who has a large Cautiousness, must reason with all possible precision, and must always shew that he himself is willing to be decided by the strongest arguments which can be

the head. His observations are singularly borne out, for if the works of Dr. Spurzheim are consulted, the very organs brought into action to produce the knowledge obtained, will be found to have greatly enlarged, while those not brought into action remain nearly the same as they were twenty-one and twenty-four months before in the heads here alluded to; and some cases, where a propensity has ceased, the head has got less. Many changes have also taken place at late periods of life, where the course of life and new studies have been successfully pursued. Amongst them, changes have taken place between thirty-two and thirty-six—forty-one and forty-six—forty-five and seventy—and fifty and eighty years of age—wamely, changes have taken place at all periods between eight and eighty years of age, having upwards of one hundred casts in illustration of the facts.

produced; for a preceptor who has a knowledge of the science will immediately discover those faculties, and in lieu of coercive means, which are too often resorted to in seminaries, he will commence by reasoning; for it is a fact pretty well known, that if youth can be brought to hear and give reasons for their opinions, they will not be violent and positive in their assertions; they will not think that the truth of any assertion can be manifested by repeating over the same words a thousand times; they will not ask how many people are of this or that opinion, but rather what arguments are produced on each side; in fact, there is very little danger that any, whether young or old, should continue to be positive, who are in the habit of exercising their reasoning faculties. The same rule may be observed when a weakness is supposed to exist, and also where youth are largely developed in the moral sentiments, and a moderate proportion of the animal.

From the age of sixteen to thirty and upwards, the most active parts of the life of man, more particularly of the studious, come into action and full play; during this period the whole of the faculties are, in many individuals, in a very active state, when much determined and permanent character may be predicted; but some allowance may be made for those who have been in an unhealthy state, under which circumstances the faculties would be in a state of inactivity. There are also individuals during this period who, from circumstances, are not placed in the way of seeing or having an opportunity of cultivating their faculties; numbers who have shewn peculiar talents late in life are of this description, and of which there are many examples in the polite and mechanical arts, who, if casts had been taken previous to their talents being actively employed, and taken again when they had been two or

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three years so engaged, many interesting discoveries would have been made.

Between the age of thirty and sixty, particularly during the last ten years, much of the determined character of man begins to fail him (except under extraordinary eircumstances, it may extend many years longer); he becomes more easily irritated, and manifests a wish for tranquillity; but it is also remarkable in the history of man as the period of deep reflection in those having the powers, and the time that Conscientiousness, Cautiousness, and the superior sentiments, when fully developed, shew themselves most powerfully active, by circumspection, love of justice, and firmness: it is also during this period that the dignified, the philosophical, the statesman, the artist, and permanent character of man is more exhibited to view than at any other period of his history; after this period his memory begins to fail him, also many other powers, and the permanent character of man begins to fail also.

By the observations here made, it will be perceived that something of the age is requisite to be known when any observations are about to be made by casts of heads or skulls, also whether educated or not, and also if male or female: when this is done, those making the observations will be able to arrive at their conclusions much better, and with more satisfaction to the parties wishing information; for reason will convince any one that there must be a difference in the character of an educated and uneducated individual, also between male and female.

In the preceding observations we have taken a slight view of the periods at which we consider some advantages may



be obtained in the education of youth by a study of Phrenology, and in a more proper and better direction of their faculties when entering on their studies for any particular profession, trade, or business.

Being impressed some years ago with feelings of this nature, our inquiries were directed, amongst others somewhat arduous, to the application of the science in educa-In some of our researches we certainly have been gratified beyond our expectation; we therefore now beg to recommend to preceptors and parents, to (do as we have done) make some inquiry into the disposition and manifestations of the cerebral organization of youth, before their mode of education, the profession or business they wish to prepare them for, is finally determined upon; for we have not the least hesitation in thus declaring our opinion, that if parents and preceptors will pay attention to the cerebral organization of youth, the former will have the gratification of knowing that their offspring is coming forward with knowledge progressively, as fast as nature will admit, by the organization; and the preceptor will feel the same gratification by its being ascertained, that by the same means of examination he has not been inattentive to those under his charge.

As before observed, feeling it will give great facility in the education of youth, we beg to invite a little inquiry into the subject, and have not the least fear that, if commenced, it will be readily taken up; its importance will be felt and persevered in by many whose avocations will admit of the same.

To give some facility in the inquiry, we have given three cuts from known cases of peculiarity in their education and organization.



The cast from which this is taken is of a youth who felt difficulty in taking his first principles of education, appearing to his parents and preceptors at times dull, and at other times the reverse. They often discovered that he was possessed of knowledge superior to that which they wanted him at the time to learn: finding this, they naturally concluded it proceeded from obstinacy, and took their measures accordingly to remove the difficulty by force (by punishment), but soon found that was not the way to proceed. for having Combativeness, Destructiveness, Self-esteem, and Firmness large, his passions were manifested to a high degree: moreover, having the superior faculties large, he. was capable of judging, though not of explaining, that his knowledge was superior to many who met with caresses for inferior performances to his own. This would have the tendency of keeping those feelings alive.

We here find the perceptive faculties small (with Individuality moderate), while the superior are very large,

namely, Comparison, Causality, Ideality, Imitation, and Benevolence.

Youth thus developed will be found difficult to take their first principles of education, and often suffer punishment, the perceptive faculties not being in proportion with the superior, thereby not being able to explain themselves. It is from this class of youth that many turn out prodigies, and jump over others who have been considered so in the early part of education. Let a practical Phrenologist see cases of this kind, he will have no difficulty in pointing them out. We have met with a great number, many having been brought for the purpose, and seldom failed. This being the case, it is fair to presume that something may be done by a change of the mode of education, and in getting them forward better in their first principles. It is this they want assistance in.

It has been inquired by parents and preceptors many times, if we could point out a mode to proceed with such cases. With much deference to the preceptor, we feel that it lies with him to do that—it is his business—it is his bread—it is by it some have made good properties. We feel that by boldly pursuing a science that leads to the first cause, we have done much. They ought, by study, to avail themselves of the same means as we have, and use their best endeavours, out of which a plan may be hit that will apply to such cases: if they succeed, they are sure to meet ample reward for their trouble.

We are also inclined to think, that manifestations of derangement of mind, in many cases, proceed from this class of youth, as we find upon research, that the organization of the anterior part of the head is very like a great many cases of derangement that have come within our notice. If a study of the science will assist, in part only, to prevent such a thing, what an acquisition it will prove to many in society! for no one of common feelings can but lament to see so many deficient of proper reason. We seriously invite those having the means of inquiry into the particulars of this class of youth, to enter upon the same, and to note down such particulars as come within their view, as we feel, by their so doing, they will confer more benefit than at a first glance they may suppose; neither will the difficulties to the inquiry be so numerous as at first may appear.

The second figure is different to the last: this is taken from a youth who took his first principles of education quick, with great difficulty in the second part of it.



We here find quite a different organization; in this the perceptive faculties are large, and the reflecting, with Ideality, moderately developed. This is different to the last, it being in the next or second part of education that the difficulties have been discovered. Many of this class of youth will be found between the ages of seven and fifteen, during the time they are educating, or preparing for busiaess or professions.

In this figure the whole of the perceptive faculties, with Language and Individuality, are large. Children and youth thus organized will get all the first principles of education quick, and, having Language large, will be able to explain themselves in the same without difficulty; but it may also be observed, that the superior faculties are moderately developed, viz. Comparison, Causality, and Ideality. Here the organs that carry on superior knowledge being moderate, a difficulty in acquiring the same seems to be the natural result. Our inquiry into the same proves it to be so, though we have not seen quite so many cases as in the first, but have not the least doubt but there are quite as many, which time and deep research alone can bring to view.

Parents and preceptors do not discover this in youth, till the former are beginning to think of placing them out to business or professions; they then begin to examine and look into their state of education, when they often find, to their mortification, that little if any progress has been made in the last two or three years, having been prevented from the inquiry from a feeling that by attention they would continue as at first, but to their astonishment find it otherwise. The preceptor is then applied to, and often much blame is attached to him, which he in return successfully throws on the youth (when neither are in fault): punishment then commences, by deprivations of pleasures or comforts, and sometimes corporeal (or the whole), and that often by direction of the parents; but what is the re-

sult? why, the youth having got to an age to begin to think a little for himself, fancies he is hardly dealt with, and endeavours to get himself removed to other seminaries, and if he fails in this will run away, being at an age to resist punishment to a certain degree. At this age youth (particularly if Self-esteem be large) think much of themselves, and often fancy they can live without the assistance of their parents, and pretend to know what is best for their interest.

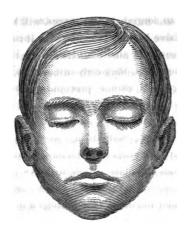
Great numbers of this class will be found by inquiry; and we have no doubt that cases of this kind, as well as the difficulties in the first principles, may be pointed out in very early youth at the first commencement of education.

Another great advantage, and not of less importance in education, is that of being able to get an understanding of their dispositions clearly and well known. If preceptors of youth are spoken of, and it is known that one brings forward his pupils much quicker than another, you will find that he has some method of learning the dispositions of his scholars readily by physiognomy, or some means peculiar to himself. This done, it is a fact well known that youth can be brought forward much better in their education. Being lately in company with an eminent preceptor, who justly has the character of finding out the dispositions of youth early, we inquired if he could lay down any plan for others to do the same; he felt it impossible to do this, at the same time stating, that in some youth it appears impossible to get at their disposition; watch them as carefully as you will, they will baffle every endeavour. He has known instances of this kind when the dispositions have not been known in five years or more.

This, in a great number of instances, will be found to be the case when due inquiry is made. Is it not fair to presume, then, that much may be done for youth, if the one. difficult in the first principles, the other in the second, and that the disposition of either, previous to education commencing, can be discovered by their preceptors? The truth of this may be easily ascertained. The one who feels a difficulty in the first principles may be readily pointed out, and nearly the same with those who meet with difficulty in the second part of education: and those with whom preceptors have been years, and not known their dispositions, let a practical phrenologist see them, he will point them out in as many minutes, with the causes of the able preceptor's inability to do so. If this be really the case, what an advantage to preceptors and youth!-let those who doubt it make the trial,—put it fairly to the test, with candour and honour,—if not found so, treat the supparters as pretenders; they will no longer be worthy of respect; -the supporters of the doctrine hail the inquiry; they fearlessly approach the same.

The next is the figure of a youth who has taken the first and every branch of education with facility.

It is quite different to the other two. The intellectual faculties are all largely developed, with Language also large. Youth thus organized find nothing difficult; they will readily apply themselves to any art, science, or profession.



HAVING alluded to punishments of youth, a few observations will not be out of place here. We have long entertained an opinion that corporeal punishment is by no means the way to correct or check the passions or propensities of youth; we are also of opinion that to correct, punish, or in any way disgrace a youth in the presence of others, in the school, or otherwise, when his companions are present, is equally bad; but should experience prove we are wrong, we hope these observations will be taken as error of judgment, and not intentional blame thrown on any one who may think differently.

An able writer on the education of youth says, "To punish in the presence of others drives the gentle spirit to artifice, and the rugged to despair; generates deceit and cunning, the most hopeless and hateful in the whole catalogue of youthful failings. Severity will drive terrified children to seek, not for reformation, but for impunity.

A readiness to forgive them promotes frankness. And we should, above all things, encourage them to be frank, in order to come at their faults. They have not more faults for being open, they only discover more." A study of Phrenology will enable preceptors soon to discover deceit, cunning, the timid or the frank in his pupils.

It often happens where youth come forward in their learning very quick, manifesting at times extraordinary talent, they are in general put forward into view; nay, it almost becomes a custom among teachers ("which is not the more right for being common"); they are apt to bestow an undue proportion of pains on children of the best capacity, as if only those who manifest great talents are worthy of attention.

They should reflect that in apparent moderate talents, carefully cultivated, we are to, and may at times, look for much, but at later periods: perhaps, mediocrity of parts was deemed to be the ordinary lot, by way of furnishing a stimulus to industry, and strengthen the motives to application;—for it is obvious, frequently, that apparent moderate abilities, carefully carried onward to that measure of perfection of which they are capable, often enable the possessors of this knowledge to outstrip in the race those considered more brilliant but less persevering competitors. "It is with mental endowment as with other rich gifts of Providence."

The former manifesting extraordinary talents, and by the manner they are brought into notice prove at times to them of much injury, they become like the inhabitant of a luxuriant southern clime, where Nature has done every thing in the way of vegetation, indolently lays hold on this very fertility as a plea for doing nothing himself; so that the soil which teems with such abundance leaves the possessor idle: while, on the other hand, those of more moderate abilities, and with little or no prospect but what is obtained by their own talents and perseverance, will be more like the native of the less genial region, supplying by his labours the deficiencies of his lot, overtaking his more favoured competitor: by a substitution of industry for opulence, he improves the riches of his native land beyond that which is blessed with the warmer sun, and thus vindicates Providence from the charge of partial distribution.

The observations on this part relating to education are much longer than we intended in this small publication, but feeling the subject to be an important one, we have proceeded on with a hope that some one more capable will take a hint from what is here thrown out for inquiry: at the same time we can assure them, that although they may meet with difficulties, they will find much pleasure, and any hint we are able to give will be done with the same feelings.

NOTICES.

THE students and admirers of Phrenology are respectfully informed that a very large collection of masks, heads, and skulls, as examples of peculiar organization delineating the various developments illustrative of the science, amongst which will be found casts of many interesting public characters, as well as of national examples, shewing the diversity of national character, may be had of J. De Ville.

Ladies or gentlemen desirous of having casts taken from their own heads, for phrenological studies, or as family memorials, are respectfully informed, that by a new, simple, and easy process, occupying not more than five minutes, they may have perfect fac-similes of their own heads, and at a very small expense.

A great many persons viewing the collection of Mr. De Ville, have expressed much regret that many distinguished persons deceased have not had their casts taken, either while living or after death, such as Mungo Park, Howard, Captain Cook, Raleigh, Drake, &c. &c.; also persons distinguished in both the senate houses, at the bar, and of those filling the seats of justice; also those eminent in the drama, the fine arts, musical and other sciences, authors, &c. &c. Had such casts been taken, the means would have been furnished of placing in public or private

collections of eminent persons' busts (or casts), the loss of which is now much regretted. For it is a fact too well known, that the merits and true delineation of the most eminent public and private characters are rarely or ever justly estimated till after their decease.

This mode of casting, so easy and simple in its process, and taking so short a time, a proof of which is, that of Mr. De Ville himself having taken upwards of one thousand four hundred casts from living persons, amongst which are about seventy ladies, also many youths between nine and fifteen years of age, proves the process simple; and how desirable it is to have casts taken, from which at any time busts or portraits may be completed.

Ladies and gentlemen being acquainted with distinguished eminent persons are solicited to use their influence with them to have their casts taken, by which they will confer a benefit on their country, (and much greater on the science of Phrenology,) it being a fact known, and by almost all persons acknowledged, that a greater stimulus cannot be exhibited to the rising generation than the images of those who are held up to them as the most perfect models for their imitation, and as one of the noblest stimuli; for it may be then said to them, when impressed upon them, why so placed or why preserved,—Go, do thou likewise, and your model will be placed amongst those eminent men who have deserved thus of their country and admirers.

Many persons have a disinclination to allow a east to be taken; some from the circumstance of having been cast before by persons not much experienced in taking them, and have experienced an inconvenience in the easting. That will not be the case now, the casting from nature

being so much better understood; as, by Mr. De Ville's process, not the most trifling inconvenience is experienced, as the number of casts taken by himself will prove.

In making observations on character, and in taking down in writing the manifestations of the cerebral parts for observation, we use the initials of the words only; and as many persons may not be acquainted with the same, we have given a short description in explanation.

The initials made use of are, R S, S, M, F, R L, L, and V L; the three first are seldom made use of, finding very few having the organs so small; but when found so, they must be taken into consideration, producing inactivity in those organs, and, to a certain extent, some restraint on the action of others,—they stand for rather small, small, and moderate. The next, F for full, when so, produces a little activity, but of so small a degree, it should be taken but little into account. The next, R L, rather large, denotes a higher degree of activity, and when found so, produces much more action, particularly in combination with the two next degrees of activity, and must be taken notice of in the conclusion on character. The next, L, large, takes a good part in the character, and must be taken notice of in the deduction, as it marks some prominent points. The next, V L for very large, indicates strong points of character; but in making observations, those which produce restraint on others must be taken into consideration before the deductions are Sometimes it happens, but the cases are rare, where an organ will be larger than V L denotes, we then distinguish it by V V L. There will also be observed a small star on the side of the initials; the side that this is on denotes that the organ is larger on that side of the head than the other.

We also use seven numbers to signify the same, viz.--

- 2. Rather small.
- #. Small.
- 3. Moderate.
- 4. Full.

- 5. Rather large.
- 6. Large.7. Very large.

NOTICE.

Persons desirous of making inquiry into the science are informed, that any of the works published on Phrenology may be obtained at Mr. De Ville's, 367, Strand.

To those who wish to take a light view of the science, as an introduction to further inquiry, the bust, with the names of the different organs written in their situations on the head, with the Manual, containing twenty-nine wood engravings, will be found useful. Published by J. De Ville. Price 7s.

Casts, for the illustration of particular developments or purposes, may be had, on reasonable terms, by sending to J. De Ville particulars of what they are intended to illustrate.

Those who wish to take up the science as a study, for its practical applications, or for lecturing, may be provided with a collection of casts, shewing every organ, large and small, together with some points in illustration; also some national skulls, suitable for the student or lecturer, in collections from ten to fourteen pounds, exclusive of package; where also may be had any of the following works on the science:—

By Dr. Spurzheim.

Anatomy of the Brain, 14s.

Phrenology; or, the Doctrines of the Relation between Mind and Body, 16s.

Philosophical Principles of Phrenology, 7s. 6d.

Phrenology in connexion with the Study of Physiognomy, 22s.

Observations on Insanity, 14s.

Elementary Principles of Education, 5s.

Sketch of the Natural Laws of Man, 6s.

By Mr. GEORGE COOMBE.

System of Phrenology, 15s. Constitution of Man, 5s.

The Phrenological Journal (which has now reached its 43d Number) may be obtained at the same place, price 2s. 6d.

Printed by WILLIAM CLOWES AND SONS, Duke Street, Lambeth.

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GENERAL OBSERVATIONS

ON THE

PRINCIPLES OF EDUCATION:

FOR THE USE OF

MECHANICS' INSTITUTIONS.

George Stewart
Sib G. S. MACKENZIE, BART.

⁹JOHN ANDERSON Jun., EDINBURGH, 55 NORTH BRIDGE STREET;

AND

JOHN M'LEOD, GLASGOW.

MDCCCXXXVI.

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TO THE

MEMBERS OF THE MECHANICS' INSTITUTION OF INVERNESS.

THE following general observations on the Principles of Education, (as you are aware), I had intended, but for circumstances that occurred to render it inconvenient, to have publicly delivered at Inverness last spring, in the form of Lectures; in the hope that some excitement to farther inquiry into a most important subject might be the result, as well as a desire to promote lectures on various branches of knowledge. Having been encouraged to believe that, if printed in a cheap form, these observations might prove useful in directing your minds to the contemplation of the true principles which must ever direct Education that is to be essentially effective, I now present them to you with my best wishes, though the subject be not exhausted, nor the observations arranged so well as might have been the case had this been other than a merely ephemeral production, in which light I request it may be regarded.

G. S. MACKENZIR.

Edinburgh, June 1836.

GENERAL OBSERVATIONS, &c.

INTRODUCTION.

I CANNOT expect that, among those whom I have now the pleasure of addressing, there are none who have imbibed and cherished prejudice in favour of old practices. Indeed I cannot help expressing my hope, that every one who indulges prejudice is resolved to attend to what I have to say, and scrupulously to criticise it. It is not intended to seize on the imagination by means of studied eloquence, nor to entertain the fancy by entertaining discourse. There is no need, therefore, to bespeak the mercy of reviewers, since it will be my aim to deliver, in the plainest language, truths derived from the plainest facts. It is the understanding that will be addressed; and, therefore, the more narrowly the matter which will be delivered is examined, the more prominent will the truth appear. Those who have no prejudices to overcome, will be more ready to perceive truth when it is announced; and it is hoped that, from them, some assistance may be obtained in disseminating just views of the subject that is to be unfolded.

Custom and habit unquestionably have influence on the understanding, both in fixing attachment to what we are accustomed to, and in rendering the mind unwilling to exert itself in looking at the advantages of new discoveries. What our fathers did we are inclined to do, rather than to take the trouble to think for ourselves; and the appeal to the wisdom of our ancestors, so often made by those who are inclined to keep the human mind in bondage, has had too much effect in plunging mankind into apathy. That men whose interest it is to keep the human mind in dark-

ness do exist, is a lamentable truth; but the dawn of a new day has arisen, and its noon is now in prospect, when the light will guide the high and the low, the rich and the poor, into one broad highway, on which they will travel harmoniously together towards the Temple of Truth, instructing and helping each other as brethren, the children of one common Father, whose will they strive to discover, whose commands it will be their delight to obey.

The world being now older than it was in the days of our ancestors, the race having existed longer, our experience should be of greater extent than theirs. Accordingly, although light shone but dimly into the minds of men, although meteors occasionally flashed with extraordinary illumination, but insufficient to arrest human nature from the abuses of its powers, there has been a continual advance in knowledge and improvement. To an indifferent spectator, the progress of human affairs seems to be the result of mere circumstances; but, by the reflective observer, the hand is seen of that beneficent Providence which, alive to the happiness of the creatures He has formed, has ordered that discovery and improvement shall be gradual, but constant. At times the page of history is almost a blank in relation to the human race, which we find absorbed in the gratifications of its animal nature, even in the midst of refinement which we imitate, but happily know how to use. Barbarous tribes have swept over the land where philosophy, literature, and the arts, had flourished; and even where the lights of Christianity were kindled, the lust of dominion and riches strove, and to a vast extent succeeded, to render them the means to raise a superstructure of superstition upon ignorance, so as still farther to debase the human mind. In all this, however, the great design seems never to have been changed. The embers were smothered, but not extinguished; fuel was heaping up around them; the sun of science at length arose upon intellect, and from it flew the spark that rekindled the flame of knowledge, and rescued Christianity from the tomb.

Without dwelling too long on this cheering theme, let us reflect on the progress that has been made in our own narrow corner of the earth during the last half century. Let us look to our land inhabited by barbarous tribes, acknowledging no law but that which was dictated by their chiefs, and their chiefs immersed in pride and selfishness,—the land uncultivated,—the necessities of

nature supplied by plunder,—men living in strong castles, in constant expectation of attack themselves, or meditating robbery and alaughter of their neighbours; and let us view it now, and say, whether we have need to blush on the comparison of our wisdom with that of our ancestors? Were even those who lived to see the light glimmering in the distance, to awake from the sleep of death, and look around on the face of the country covered by the varied hues of wide-spreading forests, or waving with the golden riches of autumn; on the means afforded to facilitate communication, and to waft from a once poor and neglected country, the means of subsisting the hardworking manufacturer, and of pampering the luxurious rich of another land, in return for what she has given us in science and the arts,—they would imagine themselves transperted to some region far distant from the homes of their fathers.

Notwithstanding all the valuable improvements that have been made, and that we have the benefit of much light that was denied to our fathers, prejudice still lurks amongst us, nursed by pride and vain glory. The love of power and of influence, as well as the love of self, lead to the desire that things should remain as they are, because it is plain that knowledge is power; and power so great, that it will not much longer endure that the human intellect should be swayed, so as to subserve the vanity and love of dominion of those whose gratification depends on its being hoodwinked. It is fortunate that those who see the fall of their power, and the disappearance of the food of their vanity, involved in the dissemination of knowledge, have exposed themselves in an unseemly manner. Their expressed fears are the surest indications that all things are working together for good. Yet those who wish well to their fellow-creatures, must not conceal from themselves the risk of letting popular feeling loose, in the eager desire for change. Since those who desire no change have been rash in their denunciations, and have excited the dislike of the people into a torrent that may throw every thing into confusion, those who desire a change from darkness and oppression into light and liberty, must hasten to arrest the passions by attracting the intellects of the people. Most persons agree in the propriety of this; and some pretend to agree, with the view to pervert the means employed into forging yet more galling chains for the understanding. Many of those, however, who are sincerely devoted to the improvement of man, but who still cast longing, lingering looks behind, are uncertain how to proceed; and their hesitation brings upon them the ever ready attack of those who have honey on their lips, but selfishness in their hearts. This wavering among the friends of knowledge arises wholly from ignorance of the principles on which a rational desire for change is founded. Mankind have gone on so long without just and true principles to guide them, that no pains to discover them have been taken by those who cry out against change. Happily there exists a higher power to overrule the destinies of man. It has been determined by Him who formed the human mind, that it shall not always be in darkness; that it shall go on progressively in its acquirement of knowledge; that it shall benefit by that knowledge, and draw nearer and nearer to its Creator.

Those who are unaccustomed to observe the progress of science, do not know how wonderfully that progress unfolds the beneficence, as well as the power and wisdom, of God. It would appear that He has ordained the chief pleasure of man to be to search into his works, and there to see Him. And when any science is nursued, discoveries are made which open up one field of research after another, so as to make it probable that myriads of ages may clapse, and still something new and more wonderful will remain to be discovered. In my youth, the science of Chemistry was confined to a few facts; and it appeared that but a few substances existed which appeared uncompounded and simple. By degrees some of these were decomposed by the application of newly discovered agents, and now, so many fields of research have been opened, as to produce a scarcity of labourers; and it is almost impossible for any mind to embrace even a tithe of the mere facts of science. Since, then, the amount of knowledge has already vastly increased, and as it appears that vast accumulations are yet in store for those who will accept the bounty of the Author of all things, it becomes of more and more importance that the modes of educating the young should be improved, that succeeding generations may be fitted to enjoy God in his works, to the full extent which He is pleased to offer, and be thus prepared for still greater enjoyment in a life to come. It is of the greatest importance to lead the youthful mind first to see what has been discovered; for this better enables it to direct its energies with profit towards attaining new acquirements, and the high enjoyment of contemplating the immensity of that intelligence and power which brought all things into existence, and the inconceivable extent of that benevolence which directs that power to produce enjoyment for its creatures.

DIVISIONS OF EDUCATION.

There are four great branches of Education. The first relates to the acquirement of the means to arrive at knowledge; the second is the manner in which knowledge is acquired by the means; the third relates to the cultivation of the mental faculties, or moral education; and the fourth to religious education. Or, a division may be made into the objects of education as they refer to the comfort and happiness of society, or moral education; and into those referring to the individual, or religious education.

For a regular moral education, a matter of such vast importance to society, it is lamentable to think that there exists no public provision. Vast sums are levied in the shape of taxes, which are expended on the punishment of crime; but not one farthing is devoted to that which alone can prevent crime from disturbing society. If crime has abated in amount, if any means have been applied to diminish its frequency, society does not owe them to assistance from the public purse. We hear indeed of penitentiaries, of establishing systems of prison discipline, of Magdalene asylums, of houses of refuge,-but not one of these is applicable to prevention of crime, and they are but poorly contrived for reformation. The Legislature is engaged in making imquiry, and it is hoped that, at least, an approach to the proper means of preventing crime may ere long be made. For religious education most ample provision has been made, and the community pay most liberally for it. But with all the munificence displayed in this department, it appears that there exists something or other that hinders it from conferring all the benefits on society. that may be reasonably expected from it. What that something is, may in due time be discovered and removed. At present it cannot be denied, by any one who has duly employed his powers of observation, that religion has not that power in the direction of human conduct which it ought to have; and it is of the utmost importance that the cause of this should be discovered. Probably

both positive and negative causes exist, and whatever we may suspect to belong to either class, should be seized upon and investigated. And in the investigation, it should be kept in view that theoretical metaphysical reasoning will not now satisfy the world, and that nothing but the result of induction from facts will carry conviction. It is not to be denied, however lamentable it may be, that minds exist to which even inductive reasoning will not bring conviction.

No subject has been more written upon than education. Piles of volumes have been published and forgotten; and for this reason, that no sound principles were laid down on which a system could rest. Without a foundation formed of imperishable materials,-materials brought together by the hand of the Great Creator himself,—no enduring superstructure can be raised; in all discussions on the most important subject on which I am to address you, principles must never be lost sight of. It is my wish to lay them open to your view, and perhaps there may be rashness in imagining that I may do so with effect. As no other more able expositor of modern discovery was likely to be induced to undertake the task, and as it is always of consequence to redeem the time, many considerations that might have deterred me are waived; and while I endeavour to compress into as small a space as possible that which is necessary to be known, before any one can undertake the office of a teacher with any certain prospect of success, I trust to your indulgently forgiving whatever may appear to be failure, and to your putting a proper and just construction on my motives. By means of lectures, numbers are brought to make their minds bear on one point-discussions arise -inquiry made-and even the criticism to which the lecturer inevitably exposes himself, will be productive of good. If I shall be instrumental in rousing amongst you attention to the principles by which education should be directed, my time will have been well occupied, and my own satisfaction complete.

NATURE OF THE SUBJECT TO BE EDUCATED.

When a subject is presented to us for education, it is surely natural to inquire into the nature of the subject. If we desire to fashion any inanimate substance into a particular shape, we

never fail to examine its qualities and properties. Were we to present a mass of wood to a carver, and bid him cut certain figures upon it, the first thing he would do would be to try the hardness of the material, and its other properties, in reference to the resistance it was likely to offer to his tools, with the view to determine whether it would answer the purpose required. When a child is presented to a professed teacher, he makes no inquiry into the nature of the subject. He thinks it will make no resistance to the only tool he employs; that the lash will mould it to his will. He thinks all children are alike, in ignorance of the human con-He was tyrannized over himself, and deems it fair to be a tyrant in his turn; and thus the wisdom of our ancestors is handed down from generation to generation. The ordinary pedagogue goes blindly to his work, and is reckless whether, to use a vulgar phrase, he make a spoon or spoil a horn. He is paid for his work; and if it be spoiled, he declares it is not his fault, but that of the subject. He pleads its stupidity, obstinacy, carelessness, and so forth. He never inquires into the causes of such untoward qualities, which give such resistance to his tool. If he cannot remove them by exhibiting passion, and inflicting disgrace and the lash, he thinks no more about the matter; and the child comes out of his hands nothing the better, but in all probability greatly the worse, of what it has pleased good people to call education. As it is obvious to the most careless observation—as it has been a thousand times stated in books-that children and grown-up persons differ from each other in capacity and character, as much as in shape and feature, it is wonderful that the world should have grown so old before the causes of such diversity were sought for. Metaphysical theories have been broached in abundance. and a vast amount of splendid talent and eloquence wasted. For whenever such theories are tested by experiment; whenever they are applied to facts of the most common occurrence, they fail entirely; and we lament that the genius of so many great men (for great they were, though their efforts failed) should have expended its energy on that which we can now class only with frivolities, since it led to no practically useful result, however profound its investigation. Before we proceed to educate, we must thoroughly understand the nature of that which is to be educated; and it will appear of the greatest importance, when that nature shall be known, to make the subject of education acquainted with it. I propose, therefore, to set before you a general view of the nature and constitution of Man, physical and mental, in so far as these have yet been ascertained by observation and experiment; and to exhibit in what manner the knowledge of the nature and constitution of man is to serve as a true guide in education. I cannot, of course, be expected to enter into these subjects in the manner of teaching them. But this need not be regretted, as the means of acquiring more extended information are within your reach, and of which I very anxiously hope you may be induced to avail yourselves by what I have to submit to your consideration.

The first inquiry is, How is the nature and constitution of man to be discovered? Metaphysicians adopted the method of studying their own consciousnesss, and that method has been found wanting; for the instant that a man compares himself with another man, he discovers so great a variation in his consciousness from that of his own, that he can no longer set himself up as a standard. One man may perceive that he has a constant inclination to be tender and merciful to his fellow creatures, and to do good to them; but were he to believe all men to be so disposed. he would greatly err: For another may be seen, who, by his cruelty of action, betrays that he has no consciousness of tenderness and mercy, but a disposition to injure and destroy, the gratification of which gives him pleasure. It is therefore evident, that it is by observation alone that man can be known. As it is obvious that man does not owe his existence to himself, we may rest assured, that whatever we may discover by observation has been produced by the Creator for the best and wisest of purposes. We may meet with facts difficult to be explained; we may see what may puzzle us to reconcile with that Perfect Morality which we believe clothes the Most High God; we may imagine there is injustice in some of his appointments; but this we shalk certainly learn, that, in as far as we have yet been able to penetrate, every thing appears to be ordered, according to our own conceptions of what is right and necessary in reference to the end in view. The just inference is, that, as we proceed, difficulty after difficulty will disappear, and that we may rest assured that Perfect Wisdom and Perfect Justice has not erred. Where error seems to exist, it will be found to rest with ourselves; and that, whatever may come upon us that we would avoid, we have brought upon ourselves by neglecting to search for the laws which the Creator has established to govern nature; and, consequently, by our infringing them. Unless, however, we know our own nature, and the relation in which we stand to all that is around us, we cannot discover the Creator's laws, nor learn his will. He has beneficently spread out before us the great, the attractive, the beautiful book of Nature, in which He reveals himself by his works. Are we to cast that work aside and treat it with neglect, or are we to apply the powers which have been given to us in the delightful labour of turning over its leaves, and in every page reading a call to adore Supreme Power, Wisdom, and Goodness? Who that is endowed with a rational soul can hesitate in his choice? Let us, then, open the book, and see what we are, and what we are destined to attain.

GENERAL STRUCTURE AND FUNCTIONS OF THE BODY.

· Our bodies are formed upon a structure of bone, admirably adapted for having fitted to it an apparatus of a most complicated kind, by means of which the body is made either to move or stand The appearance of design is remarkably prominent in the formation of the skeleton; for it shews that, before the first man was created, the whole of his structure, and the functions of every part, must have passed through the mighty intelligence of the Creator. The design was complete ere a single part was formed; and, in adaptation of means to ends, it is impossible for us to conceive how any one end could have been attained by more simple and effective means. The Bones are united by joints, beautifully fitted, and bound together by ligaments, at once strong, light, and flexible. To produce motion, the Muscles, as they are named. are fixed to the bones, and they are varied in length, in mass, and in position, so as to act as ropes for drawing the bones into any required direction. The strength of the muscles is enormous in proportion to their size. So powerful are they, that the blast which rends a gnarled oak, fails to throw a man upon the ground. Among the muscles we observe a number of branching tubes and threads; and, tracing these, we find the former connected with a strong muscular hollow vessel, which is named the Heart, and the latter connected with a mass of matter contained in the skull and

of a tender pulpy structure, called the Brain. Tracing the passage of our food from the mouth, we find that it is carried through a tube into a bag formed of muscular and membranous fibres. In this it is elaborated, and in a fluid state it passes along another tube varying in its diameter, and tortuous in its course. This tube is supported in a most curious manner, and we find it connected with numerous tubes and threads such as have been already noticed. We also find a connection subsisting between it and some of these tubes which conduct to the Heart. Another kind of tube connects the tortuous alimentary canal with another large viscus, called the Liver. From the heart proceed tubes which pass into another large viscus of a very delicate and curious structure, called the Lungs, from which ascend various pipes, which terminate in one large one communicating with the mouth, and thus with the external air, by means of which breathing, or respiration, is carried on in the lungs. The fluid called the Blood is contained in the heart, and the numerous branching tubes connected with it. The heart is formed so as to expand and contract. and thus to drive the blood through one set of tubes, called Arteries, into another set, called Veins, by which it returns to the heart, to be again circulated. In its passage through the arteries the blood loses something, as is proved by the fact, that its colour changes from a florid red to a dark hue. This loss is supplied by an apparatus of tubes, which conveys the dark blood from the heart, and spreads it out through the lungs, where it is brought into contact with the air we breathe, which restores to it part of that which it had lost. To supply the waste of the blood, from which every part of the body derives its nourishment, a tube convevs a certain portion of the elaborated food into the circulating mass. Now, in order to induce his creatures to preserve themselves, and at the same time to derive pleasure from the duty, a vast variety of food is presented. Of course much of this is unessential to the preservation of the body, and therefore the elaborating apparatus has been contrived. This abstracts from the food, in a manner incomprehensible to us, all that is wholesome, and the rest is excreted,—the grosser parts by the alimentary canal, and the useless fluids and soluble matter are abstracted from the blood by the apparatus called the Kidneys, whence they are poured into the reservoir named the Bladder, and ejected. Let us now return to those numerous threads which were mentioned as being connected with a mass of peculiar structure contained within the skull. It has been discovered by direct experiment, that, by means of these threads, called Nerves, a certain influence proceeds from the brain, which produces the action of the muscles. Within the back bone is a hollow, through which passes what is called the Spinal Cord or Marrow, which is a prolongation of the matter from the brain. From this cord nerves proceed in every direction. Now, if the communication betwixt any muscle and the brain be cut off, by dividing the nerve which belongs to it, that muscle becomes useless, and it cannot be moved. If the spinal marrow be cut through at its upper part, the body at once drops a powerless mass. Thus it appears the whole power and strength of muscular action is derived from the brain. But, farther, there is a large nerve which connects the eye with the brain: if this be divided, blindness is the consequence. And whenever any nerve is destroyed so as to stop the connection with the brain of the part to which it goes, that part ceases to perform its functions, and thus we may lose the five senses. The influence of the brain, then, appears to be indispensable to life. But still more extraordinary phenomena are connected with this body of ours. We are conscious that within us there is a power, which we call the Will. We will to move our limbs, that they should carry us hither and thither; we will to do a thousand things, and they are done. Yet, whenever the communication with the brain and a limb is cut off, we will to move it in vain. Hence it becomes evident, that the will and the brain are somehow or other connected. We are conscious of power to form designs, and to arrange plans for executing them. But if we drink a certain quantity of strong liquor, not only do the limbs refuse to do their office, but all our plans are forgotten, we can neither think, nor speak, nor act. What is the cause of this? The effect of the strong liquor is to quicken the circulation of the blood, and to throw so much into the vessels which enter the brain as to compress it, and thus render it unfit for its office. Whatever powers we possess may, in their utmost state of activity, be all set asleep by a few grains of opium. Although all these extraordinary effects are produced, we cannot bring ourselves to believe that our consciousness, our thoughts, and our reasonings, are all performed by a mass of pulpy matter. We cannot reconcile ourselves to the notion that those feelings, which lead us to venerate a Supreme Being, are of earth; nor that the blessed feeling of Hope, that wafts us to regions unseen, nor that which aspirates after perfection, and makes us wish to live for ever, belong to dust that shall to dust return. Since his creation, man has possessed an intuitive sense that he is a compound being; that a spirit inhabits the body which regulates all its movements, and from which spring all our desires and all our powers.

UNION OF MIND AND BODY.

The fact, then, being admitted, that man is compounded of a body and a spirit or mind, it is natural to ask, How are they united? This question cannot be answered. It is a mystery reserved by the Creator which he has not thought fit to reveal. We are, however, permitted to know, from the facts already stated, and multitudes of others, that the mind is so united to the body as to be dependent on it for its manifestations, as well as for its acquirements. Every action, every utterance of thought, is made by means of a bodily organ. Every thing communicated to the mind from without, passes through a material instrument. The union and mutual dependence of mind and body are so complete, that injury to the body affects the manifestations of the mind; and, without the directing power, the body would be useless, with all its most wonderful structure, and beautiful contrivances.

We now come to a very important fact, which, while it is notorious and universally observed, has nevertheless failed to impress its value on those who undertake the office of teachers. The mind seems to grow along with the body. Not that we need suppose that what is immaterial increases in the same manner as that which is material; but that it is evident the body is not all at once fitted to manifest the powers of mind. The new born babe exhibits only an instinct to draw nourishment from the breast. By degrees its eyes convey to it some intelligence of external things; and it manifests by natural language, whether it feels pain or experiences pleasure. At a more advanced stage it acquires artificial language, by an imperceptible process of induction learning the meaning and arrangement of words. But it is not till after the lapse of many years that the powers of thought arrive at their utmost vigour. As we cannot, then, con-

ceive of the mind that it grows, we arrive at the conclusion that the body becomes gradually fitted for its use, and thus it appears that they keep pace with each other.

Before drawing the inferences which the facts already stated justify in reference to education, it is proper to inquire into what are the faculties or powers of mind that are manifested when the hody is in a state of maturity. This inquiry is the most important by far into which philosophy can enter. It has occupied the finest geniuses-the most powerful talents; but it was reserved for the age we live in to strike into the true path, and to make discoveries that will raise the mental power of man to a degree of which we can scarcely form a conception. Nor will the power alone be augmented; human virtue and human happiness will be commensurate. But it is not destined that we who may contemplate the dawn, shall see the sun arise and proceed to meridian splendour. Ignorance vet sits heavy as an incubus on man, and prejudice yet holds him down by the chain which ignorance has riveted. Efforts the most gigantic must yet be made, before the eve of the world can be opened to the light. But let God be blessed that we can perceive His beneficent intentions towards the human race, and that He permits man to approach to Him nearer, and yet nearer. It is that great production of the great Creator, the Mind, that is destined for the great work. To it is given to enjoy the delight of unfolding itself, and its relation to external things; of learning that almost all the ills of life may be avoided by obedience to laws which unerring wisdom has enacted. and left to the mind to discover. The truest enjoyment in this life is to seek for God in his works, to contemplate their arrangement and connexion, and to turn them, as he has permitted, to our own advantage.

FACULTIES OF THE MIND.

The words Faculties and Powers, as applied to the mind, have been used indiscriminately. The word Instinct has been employed to denote something inferior, and is used chiefly when speaking of the lower creation. But as this word rather tends to confuse, and as man has instincts equally with his inferiors in creation, it seems best to use the word faculty, and, when necessary,

to employ the explanatory term propensity. Philosophers have enumerated a great number of faculties, and have mingled modes of action with primitive functions, so as to leave us without any precise notion of their exact meaning. In the enumeration about to be made, it is my intention to follow that which has been laid down in the new philosophy known by the term Phrenology. It is now about half a century since this philosophy was first announced. It is exactly twenty years since it was made known to me. I had attended the prelections of the celebrated Dugald Stewart in the University of Edinburgh, and been tired by vain efforts to discover to what useful purpose the philosophy he taught could be applied. When the new philosophy appeared, it was represented in such a manner that I joined in the ridicule that was lavished upon it. Accident led me to the acquaintance of the able coadjutor of Dr Gall, who discovered the true philosophy of man; and I now perceived that the matter had been ignorantly and grossly misrepresented. In no long time my acquaintance with Dr Spurzheim ripened into friendship, and that most able, amiable, and excellent man, opened up to me as it were a new existence. Like all other things that are new. Phrenology has been, and still is, exposed to a sort of persecution from those who will not take the trouble to learn what it is: and from that I have myself suffered; but in the company of men who are ornaments to their kind, and to whom truth and honesty are valuable above all things. Conscious of the vast intrinsic value of the new philosophy, we felt assured that time would discover that value to the whole world; and we have been supported in our efforts to propagate truth by the conviction. that, if our names should survive us, posterity would make us ample amends. It has been so ordered, however, that, though Gall and Spurzheim have paid the debt of nature, some of their earliest disciples have lived to see the truth already spreading to an extent, and with a rapidity, which they could not have conceived possible, and that in different quarters of the globe; so true it is that great is truth, and that it must prevail. It is not my purpose to teach this new philosophy, but only to satisfy you that certain faculties do exist, and are necessary for us as social beings. It may be mentioned, however, that the faculties to be enumerated and illustrated have been ascertained to be connected with certain portions of the brain, which are the material instruments destined for their being manifested. The brain is not the mind, nor are its parts faculties of the mind, though ignorant and senseless persons have affirmed that such is the doctrine of the new philosophy. No one denies that the eye is the material instrument by means of which light, colour, and form, are conveyed to the mind; and we find the eye connected by a nerve with the brain, certain parts of which have been ascertained to be the organs in most direct union with the mind, which receives from them the intelligence, as it were, that light, colour, and form, are present. So it is with the other senses, which are the gates by which objects enter into the chamber of the mind, where it employs its instruments to perceive, to reflect, to compare, and to judge. The question of Materialism will here naturally occur to you, and I beg to say a very few words on that subject.

Some men noted for acuteness and talent, have affirmed that what is called Mind is not an immaterial principle, but that its manifestations are the result of a peculiar combination of material substances, endowed with what is called life, which also, they have said, results from certain material influences. Such an announcement instantly brings down upon the devoted head the execuations of religious feeling, and the thunders of the church. the unfortunate philosopher is denounced as a heathen, an infidel, and so forth. Now I would have you to reflect in this manner, believing you to be Christians: Jesus Christ himself never uttered a reproachful word. He exhorted his followers not to rail at their neighbours, even though they should rail at them. He denounced and reproached hypocrisy; but never the expression of a mere opinion. He strove to reclaim men from the errors of their ways, and knew well that reviling was not the way to effect that important end. If, then, any one should broach to you the oninion (for it is no more) that mind is nothing but a modification of matter, put the question, What is matter, a modification of which you speak of? The instant this question is pronounced. you perceive the utter impossibility of answering it. All the multitudes of chemical discoveries have not yet opened, even to imagination, a hope that what matter is can ever be known to

We may feel an eagerness to dive into the mysteries of creation; but we may rest assured that whatever power is denied to us, is denied to us because it is for our good. Now, we are alto-

gether ignorant of what mind may be, as well as matter; and the materialist could equally puzzle us by putting the question, What is mind? It is inferred, but erroneously, that if the opinion of the materialist were correct, it would impugn the doctrine of the immortality of the soul. I say erroneously; because it is obvious that nothing is impossible to God. If it has pleased Him to form body and soul of what we call by the imaginary term matter, what is that to us? He made both soul and body, and he can destroy them both. He can kill and make alive again; and this whether the materialist be right or wrong in his conjecture. Although the body is formed to die-although we should even suppose that the soul dies with it—though they be reduced to dust, or dispersed in smoke-who will dare to say that the power of God cannot reunite them at his good pleasure, and not only restore their former union, but improve their nature, se that, while the condition of former existence is not forgotten, they shall be fitted for that new scene of enjoyment reserved for the just when made perfect? Thus we perceive that the opinion of the materialist is of no value or consequence whatever. But suppose that a man's mind shall be in such a condition as to give such an opinion the hold of belief. Suppose that this belief should lead to the idea that death is annihilation. We ought not to use harsh expressions or severity against him who may be so unhappy as to be reduced to such a state of mind. It is more fitting that Christians should mildly exert themselves to convince him of error, than violently to abuse him, and treat him as an outcast. Any man or set of men holding certain opinions contrary to our own, can inflict no injury upon us. If we should feel offended, and desire to wreak vengeance on our brother who differs from us in opinion, we are guilty of abusing our faculties, as I propose afterwards to point out, when submitting to you what may be called their legitimate and illegitimate exercise. If one man has a right to judge and form an opinion, every other man has the same undoubted right. This is Christian doctrine, and the doctrines of the new philosophy accord with it.

SPECIAL CONNECTION OF THE MIND AND THE BRAIN.

We find that injuries of the brain, and also disease, injure also the manifestations of mind, so intimate is the connection which the Creator has made between the mind and its instruments. It was the observation of such facts, and of external forms indicating the predominance of certain faculties, that led to the discoveries of the new philosophy. It is wholly founded on observed facts; and the existence of certain faculties has been ascertained in the same way. There may be many faculties yet undiscovered. What we at present deem modes of activity may resolve themselves into faculties. The poverty of language greatly retards the progress of discovery; and it will probably soon be necessary to invent new terms, as has been done in physical science.

So far as mental science has proceeded, the Faculties are arranged into those which are common to man and the lower animals, and these which are peculiar to man, and which confer upon him the high place which he holds in creation. It may appear extraordinary to some persons that mental faculties should be possessed by the lower animals—that they should be endowed with mind. A little observation and reflection will soon convince such persons that such is the fact. Looking at the bodily structure of man, and comparing it with that of the lower creation, it becomes apparent that all are formed on a general plan, varied according to the manner in which each was destined to live. Examine the skeletons, and you will find that all the parts, head. chest, arms, pelvis, spine, and legs, are present in the same relative position, though modified in proportions and shape. The wines of a bird, the fore legs of a quadruped, the fins of the whale tribe, and perhaps of all fishes, correspond to the arms in man. In fishes feet and legs are absent, because they need them not in the element in which they live; and we find that all the other animals which live in the sea, but which seek their food at the bottom and among rocks, have feet, and different kinds of locomotive apparatus. No one denies that to will to do any thing is an operation of mind. We will to go from one place to another, and our feet obey. No one imagines that he obeys his feet. Feet are given to the lower animals that they may carry them where their will directs. They have eyes and ears as well as we; and if our eyes or ears warn us of danger, our minds quickly prompt the limbs into action. Eyes and ears must serve the same purposes to the lower members of creation, which are all sentient beings as we are. Their internal structure is similar to ours, and their skulls contain brains which send forth nerves to be messengers to the mind from all parts of the body. They experience pleasure, and suffer pain, as well as we; and facts are on record which exhibit something very like reflection. I need not, however, detain you on this subject at present, however interesting and entertaining it may be. As, then, faculties are possessed by man in common with the lower animals, he has in him what is properly denominated animal nature. But he has powers so peculiar, that he possesses also human nature. I am not, however, to shew how the faculties have been ascertained to exist, and traced to their organs. To do so would be to undertake to teach the history and progress of Phrenology, the science itself, and all its bearings on human affairs and human enjoyment. It is intended only to shew that certain faculties do exist, with the view to develope certain principles that ought to guide education, and must guide it to render it effective.

DIVISION OF THE FACULTIES.

The new philosophy, then, divides the faculties into Feelings or Affective Faculties, and Intellectual Faculties. These two orders are subdivided into genera; the first includes the Propensities, faculties which produce desires, inclinations, or instincts only, and are all common to man and the lower animals. There are other feelings, which are denominated Sentiments. Each of these joins to a propensity, an emotion or feeling of a peculiar kind. Some of them are common to man and animals. These constitute the second genus, and may be regarded as Inferior Sentiments; while those that are peculiar to man are denominated the Superior Sentiments, and form a third genus. The Intellectual Faculties are divided into the Perceptive—those which perceive the existence of external objects and their physical qualities; and the Reflective Faculties.

We will now consider, first, the PROPENSITIES—those faculties which are common to man and the lower animals; and, at the outset, it may be remarked, that, while the latter have not the means of regulating their faculties, they are, to a certain degree, limited in their operations. With man it is different. He has powers which, when duly exercised, controll his pro-

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pensities, and if he do not controul them he sins. There are, however, circumstances connected with organization, and which have probably arisen from neglect to investigate the laws of our nature, that sometimes render controll extremely difficult: and diseased organization induces a state in which controul is entirely absent. Each faculty having an organ in the brain by means of which it is manifested, and the organs bearing a variety of proportions among themselves, and varying also in general size, faculties are stronger in their manifestations in some persons than in others, as accords with every day observation. This holds with the propensities, as well as with the faculties proper to man. It is therefore obvious that, whenever any part of our animal nature appears so strong as likely to run into abuse, it ought to be a primary object of education to point out to the being educated his own nature, the dangers of permitting any faculty whatever to act in excess, and the duty of calling the higher powers of his nature to controul the lower; so that the important Christian precept may be obeyed, to use the world as not abusing it.

INSTINCT AND LAWS OF PROPAGATION.

Many, it may be perhaps said all the evils of life, may be traced to a well-meaning but false and hurtful delicacy, which makes us afraid to communicate to the young those things on which mainly depend the propriety of their conduct in life, their bodily and their mental health. God said it was not good for man to be alone, and he made an help meet for him. He created man male and female, and endowed them with feelings that attract them to each other, and which, when subdued into obedience, and combined with our better faculties, enable man to attain the greatest of all blessings of which his state is capable, the rational enjoyment of a family, and of his truest friend; and that friend becomes the more true, and the more devoted, when she too exercises her better powers, and when mutual efforts are made against whatever may tempt from the path of rectitude. But if it be thus important to the happiness of the married state to obey the higher impulses of our nature, is it not also a duty the most imperative to study the welfare and happiness of progeny? When we are aware of the evils

which are brought upon society by the disorderly indulgence of the sexual propensity-when we know that bodily and mental health are both destroyed by it when it acts alone—is it justifiable to the Creator and our own consciences to keep the young in a state of ignorance, until a fatal curiosity is provoked, which compromises their own health of mind and body, and also that of their descendants? The influence of this feeling on society is prodigious; and its evil influence proceeds from ourselves, not from the great and beneficent Creator. He created man, and bid him increase and multiply. For the wisest and most benevolent ends. it has pleased the Creator to endow us with strong impulses, but he has also warned us not to abuse his bounty. If we do so, the consequences rest with ourselves, and we are inevitably punished by our own acts, in the loss of bodily health and of mental power. The evil of abuse extends itself to a lamentable extent in those countries where the men employed as religious guides are condemned to religious celibacy,—an institution at total variance at once with reason and divine law.

But let us for a moment turn from the evil and contemplate the good. Let us look at what God has given us to use, and we shall feel his goodness. When joined with other faculties, and permitted to operate only in its pure and elevated sphere, the propensity in question forms the basis of that refining and subduing sentiment which we call love. In purity and disinterestedness, it is most eminent in woman. In all ages has the love of women been extolled; and I may refer you to Scripture for an estimate of its value. In David's lament for Jonathan he says, " I am distressed for thee, my brother Jonathan; very pleasant hast thou been to me; thy love to me was wonderful, passing the love of woman." Woman nurses'our childhood; solaces and cheers our mature age; in our hours of sickness she is a ministering angel; nay, to succour us in danger she will risk her very life. Is such a being. then, given to us only to be a slave to passion? Is the happiness and the value of such a gift from the hand of God to be sacrificed by concealing those laws of the Creator which ignorance may cause to be disobeyed? Surely not.

I have already mentioned, that the discovery on which the new philosophy rests is, that every propensity, every faculty manifested by man, is so manifested through the instrumentality of a material organ. It is now necessary to inform you, that mani-

festations are strong in proportion to the size of the organ in the brain, supposing it in health, and that this proposition may, in almost all cases, be distinctly recognised in the external shape of the head. Thus we have a sure indication to guide us in the degree of care and caution to be employed in bringing up the young. It has been also ascertained that the brain is subject to the laws of exercise, and that by exercise an organ may be improved, and by want of it its energy may be repressed. Disease sometimes excites an organ to a degree that causes its manifestations to be inordinate, and this is insanity or madness. The preservation of health becomes therefore of the utmost importance; and in reference to that matter, I earnestly recommend to the perusal of young and old Dr Combe's admirable work, entitled, " The Principles of Physiology applied to the preservation of health and to the improvement of physical and mental education," and also to his more recent work on Digestion and Diet.

In reference to what we have been considering, I propose now to lay before you a summary of the laws of propagation. The subject is most important in an educational point of view, because without a healthy body there cannot be a healthy mind; and as it has pleased the Creator that the manifestations of mind shall. depend on the state of material organs, and as these organs are subject to the laws of propagation, the value of a knowledge of these becomes at once prominent. You are all perfectly well acquainted with the fact, that children resemble their parents, and that not only in their persons, but also in their dispositions and talents. Sometimes the resemblance is very close; at other times Some children resemble their father most strongly. others their mother; and some exhibit a mixture of both. There are instances, too, in which children do not resemble either parent. But where family pictures have been preserved, the likeness to a remote ancestor, either of father or mother, is often found. Talents sometimes disappear for a generation or two, and are again seen in a succeeding one. Disease also descends from parents to children, and becomes hereditary. Nor is this transmission of qualities confined to human beings. It is observed in all organized nature: and lamentable it is to have it to say, that, while advantage is taken of the laws of propagation to improve other beings, man has neglected to take advantage of them for the improvement of his own race. Are any of you fond of the

pursuits of horticulture? In that case, do you not select seeds from the most robust and perfect plants, and not from the stinted and sickly? When you are about to sow the seed, do you not take care that the soil into which it is to be dropped is fitted to nourish the plant, so as to render it robust and well shaped? When you desire to propagate a particular variety of fruit, do you not select your graft or bud from a tree in its full and mature vigour, and avoid one that is cankered? In this way you improve the productions of the vegetable kingdom, and prevent them from degenerating. Are any of you farmers and breeders of animalsany of you sportsmen who desire good qualities in horses or dogs? Why, the most ordinary country clown can tell, that, by selecting certain animals for breeding, that possess certain desirable qualities, these qualities descend to their offspring. Those who are curious in horses are for ever talking of blood and bone; and to obtain them they make use of the laws of propagation. So does the shooter who derives dogs that are active, steady, and acute in the sense of smell. Farmers, by attention to the law of Nature, have succeeded, not merely in giving improved shape to this or that point in a sheep or a cow, but have actually produced races entirely new, and possessing all the qualities desired. Nay, so very much are the laws of propagation under our control, that an English gentleman, Colonel Humphries, succeeded in producing a race of sheep with deformed bones. The fact that these laws affect men equally with the inferior animals, has long been known to him; and yet how strange it is that he should bestow more attention and care on the qualities of his cattle, sheep, dogs, horses, and other creatures, than on those of his own offspring! Man falls in love with a woman, and neither of them consider, perhaps they may be ignorant of the fact, that one or both their parents were diseased; but even with their eyes open, and with imperfection or disease belonging to their own bodies, they think only of their own gratification, are joined in wedlock, and produce unhealthy children, whose sufferings and death severely punish the inconsiderate selfishness of their parents. That men wilfully err in this matter is, I fear, true, since the laws of propagation are not wholly unknown. It is no uncommon phrase for a parent to use when a son is desirous to marry, see that you take a bird out of a good nest. This is a sound advice; for a bird may be beautiful, and to all apparance healthy, and yet the seed of dis-

case may have been planted to produce most bitter fruit. Not only is the bird to be regarded, but the nest; and here philosophy breaks out, as indeed it alway does, from common sense. The parents ought to tell the young woman whether there is a valid reason for her declining to marry, and the young man ought to inquire of them beforehand if any such reason exists, and if they he honest they will tell the truth. But, alas! mothers seem to heave all honourable feeling saide—their sole object, their active occupation, at least in those regions of society where, if education were improved, we might look for better things, is to get their daughters married. It is enough if they be married, still better if to a rich or titled man. If he has injured his constitution by dissipation, if he belongs to a family in which hereditary disease is known to exist, all is disregarded, and-O miserable infatuation!-the delight of the mother is centred in the mere settlement of her devoted daughter, whose ambition to be married has been sedulously educated—who has been rendered accomplished that the ambition may be subserved-while truth and every distinctive feeling of humanity has been represed. It is nothing that scrofula, consumption, epilepsy, insanity, which are known to descend in families, stare the parent in the face-it is enough that she has got for her daughter a good match. In forming matrimonial alliances, it ought ever to be regarded as the duty of both parties to take every precautionary means to ascertain whether they run any risk of producing children that are likely to be unhealthy and ill formed. Every well constituted mind will reflect on so important a subject, and even selfish motives may act in preventing what must be termed sinful alliances.

But we must not overlook that the laws of propagation extend to the brain; and no one who acquires a knowledge of them can be indifferent as to the mental qualities of his progeny. It is no doubt true, that men of powerful minds have sometimes but illendowed children; but this is no sound objection against doing all we can to render our children as good, and better than ourselves. It appears certain that it is an ordinance of God, that men and women should differ among themselves in the amount of talent and variety of disposition. Without such difference and variety, it is clear that society could not subsist. Were all of us possessed of a tendency to pursue the same objects; were all of us to see truth at once, and instantaneously to agree in opinion; had none

of us any thing new to communicate to our fellows for their instruction and benefit,—society would be vapid and heartless. But let it be kept in mind, that, while talent and dispositions seem destined continually to vary among individuals, their amount may be increased, and their power augmented, by attention to the laws of propagation, with the view to preserve health, and to promote the vigorous growth of our organization. Is it not a worthy indulgence to look into futurity, and imagine that a day may come when the least endowed among mankind shall equal the greatest that yet have lived, and that others shall excel them in the proportion now subsisting between the greatest and the least? We have lived to see the larger brain of Europe pushing aside the smaller brains of other and greater divisions of the earth, and carrying its philosophy and its arts to spread them over the globe. Improvement is the destiny of the human race.

There may exist reasons why men of talent and science should not have children of minds as powerful as their own, and these reasons in perfect accordance with the laws of propagation. Their studies are carried on, owing to the fascination attendant on the prospect of discovery, till their nervous energies become comparatively exhausted. If in this state they marry, their children will pay the penalty. Another cause may be, that men of great talent may, equally with others, disregard the laws of propagation, and unite themselves to a partner of inferior abilities. The laws of propagation tell us, that as much attention should be paid to the female as to the male; and it is a well known fact, that most men of great powers have derived them from their mothers. Among other considerations connected with this subject is the age at which it is most proper to marry, with the view to the health both of parents and children. The civil law permits marriage at too early an age; and perhaps it should be a rule that it should not be allowed before the mental faculties are fully developed, the brain having reached its full size.

Degeneration as well as improvement seems to depend on general laws, and to belong to those of propagation. Though the influence of propagation is greatest, a variety of circumstances tend to injure the constitution of animals. What is called breeding in and in contributes to this; and to prevent or remedy degeneration, recourse is had to crossing the breed. Families which intermarry too closely degenerate; and hence the Mosaic Law.

forbids marriages within certain degrees. That law which prevents royal families from intermarrying with subjects is mischievous to a great degree; and in them its degenerating effects are seen, in the tendency to immoral conduct, in disease, in want of capacity, and in insanity. The same holds good among the aristocracy; and it would be well if the lords of the creation would believe, that beauty, healthiness, talent, and merit, do not exclusively belong to exclusive society. This subject is, however, too extensive to be followed out.

LOVE OF OFFSPRING.

The next faculty, the love and protection of children, is a necessary one when children are produced. This feeling does not depend on reason any more than the first. In the lower animals it is easily observed. It inspires courage even in the most timid of them, and they will die in defence of their young. Equally prominent we find it in the human race. It also depends for its energy on the development of its organ in the brain. When the organ is small, the manifestations are weak; and persons are frequently met with who dislike children so much as to be uneasy in their presence. It will never be found small in those who take pleasure in the society of young persons, and in amusing them. This feeling may be abused, and hence it requires education, to prevent its running to excess. In such a state it leads to the over-indulgence of children, so as to nurse their passions and destroy their health. It is not very uncommon for a child, of not many months old, when thwarted, to strike its mother or its nurse. Ignorant that education must begin as soon as such things are observed, the mother calls on those around to admire the spirit of the babe, little dreaming that this spirit may one day be abused. Nature teaches a child to cry when it is hungry, and the signal is readily obeyed. But if caution becaute exercised, and reason be not called in to repress the feeling we are considering, the cry for mere gratification will be mistaken for that of necessity, and the child will ere long obtain the complete mastery. Indulgence promotes the abuse of the faculties in the child, and many a one has lived to curse the hour when he was indulged. The feeling, in its due exercise, is necessary and good. When it is felt to be too powerful, it is virtue to keep it within due

bounds. Females have this feeling to a much greater degree than men. Even in childhood, it is evinced in the care of dolls. Women who have no family are often observed to expend this feeling on dogs, or cats, or birds. It is wrong to ridicule this, for it is only an innocent and amiable way of gratifying a feeling which it is not in their power to indulge according to Nature's appointment. It seems to be most powerfully excited the more helpless its object; and it is not improbable that a part of its function is the care of the sick and the maimed,—for it is in the sick chamber that woman shines, and draws down blessings on her head. When it appears weak, it may be exercised in various ways. But no woman ought to marry, or be chosen as a partner for life, in whom the feeling is not strong, lest the family should be neglected. The organ is large, and easily observed.

CONCENTRATIVENESS.

The next faculty in order is that now named Concentrativeness, or the power to bend the energies of the other faculties to one object. This was at first supposed to be the faculty that leads to the habitation of a particular place; that as it led some animals to burrow in the earth, some birds to make nests in trees and others on the ground, so it led man to attach himself in one case to a mountainous, in another to a champagne country, and so forth. These functions have been found not to be incompatible. but the reasonings on the subject would lead us too far from our present object. Suffice it to say, that, for my own part, I feel satisfied of the existence of such a faculty, and of the site of its organ; because, when it is of full size, its possessor has the power of bending his faculties steadily to one object for a long time, while he in whom it is deficient is sensible that his faculties are restless. -and this is ny own case. I prepare what I have to submit to you by fits seld starts, and not at one sitting, as might be expected. Such a faculty is most valuable, and well worth exercising or educating, which is the same thing, while the brain is growing.

ATTACHMENT.

It scarcely needs demonstration, that the next faculty exists,

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that of Adhesiveness or Attachment. This leads to living in society, to the formation of friendships. It extends even to in-animate things. It is a faculty to be encouraged, and is scarcely ever abused.

ANIMAL COURAGE.

The next faculty has been called Combativeness,-the disposition to quarrel, to contend, to fight. Recently it has been proposed to give it the name Opposiveness. Its legitimate function appears to be to give courage in self-defence. A desire to fight appears to me to be a mixture of animal courage with a desire to injure, which belongs to the faculty to be next spoken of. The fun in a bit of a fight, so much relished by our neighbours in the Green Isle, is never complete unless there be some broken heads. It is quite true, as they say, it is all for love, for there is not often any display of loss of temper or of fury, unless when enemies are engaged. The bit of fun has no reference to hostility, and the pleasure is in the mere fighting. Many a diverting story is told of poor Paddy's propensity. There is one, which you may have heard, that illustrates the coolness with which he goes about to procure his bit of fun. A gentleman observed at a fair a man, armed with a goodly shilelah, going round the outside of a tent, and feeling all about it. "What are you after there, Paddy?" said he. "Please your honour," says Pat, "I'm feeling for a head." On he went, and found a head, to which he forthwith applied his shilelah. The owner, as he expected, instantly came forth to demand who had broken his pate. " And wasn't it my own self, jewel," says our friend,-and to it they went. Hearing the din, others rushed out, till the whole fair was in commotion, every one for himself, and hundreds of heads were broken, and all in pure love. However much we may be diverted by such manifestations, they are clearly a gross abuse of a feeling given to us for most useful purposes. Whenever we take a view of the constitution of nature, we discover that, unless we possessed some such feeling as this, we should soon fall a prey to attack from other animals as well as man, who is so prone to abuse his faculties, and to imitate the nature of his inferiors in creation. It gives energy and activity in all our undertakings; and, in moral conduct, enables us to resist temptation to do what is wrong. Dangers and difficulties which appal those who are little endowed with it, vanish before courage. In this world we have to contend against prejudice and hostile power, and to resist every encroachment upon liberty. Being thus of great value when not in excess, it becomes all who are engaged in educating the young to watch its manifestations, to guide them, and repress them when necessary. Its abuses are not confined to fighting without cause. They extend to contradiction, arguing against conviction, and in a disposition to disagree with others when no cause for difference exists. Persons of this stamp are constantly met with; and nothing is better known, or more thoroughly disliked, than the spirit of contradiction. Such persons, however, are not difficult to manage. If we desire to gain a point with them, we have only to announce an opinion different from our own, and they are sure to go our way. We have only to do as the Laird of Dumbiedykes did with his poney, turn its head away from the place he was going to. In many children, the spirit of contradiction shews itself at an early period. To every thing they say, no. This early indication cannot be resisted by reasoning or warning; yet education must not be neglected, and the best way to proceed may, perhaps, be to say no in return when any desire is evinced. But mothers are very averse to do this, and incline rather to indulge their own love of offspring, and nurses are apt to indulge to save themselves annoyance and trouble. Seeing, however, that such a faculty does exist in the human constitution, and the dangers of abuse, both to the beloved object and to others, mothers are bound to act as guardians, and in doing so they are safe, because they act on a principle founded in nature. And they owe a debt to society likewise, which expects them to do their duty. When the organ of this feeling is over-excited by disease, the insanity, especially when the next faculty to be mentioned is powerful, is dreadful.

DESTRUCTIVENESS.

There may be some whose nature is so mild, that they may shudder and feel incredulous when it is announced that there is such a faculty in human nature as one that gives an impulse to destroy. A little observation will, however, satisfy us on this point. We have only to look abroad upon Nature, and we see

that it is altogether based in a system of destruction and renovation. Neither the great globe itself, nor any thing in the land or in the water, is exempt from its laws. One generation cometh, another passeth away. It is so ordered that no organized being can live without taking organized matter as sustenance, and that cannot be done without one living thing putting another to death. The vegetable world could not long endure without a supply of dead organized matter. Some of the lower animals destroy other animals for food, some destroy vegetables; man destroys both. Without an impulse or instinct to destroy, man could not support life, and he destroys accordingly. In civilised society this impulse is greatly subdued by the existence of the professions of butchers and cooks. It is only those in whom the impulse is strong who betake themselves to the profession of butchers, and such persons too often abuse the feeling in acts of unnecessary cruelty. The profession is a most useful one, and is not, as many conceive, an inhumane one. You may have heard of the answer of a butcher to a lady who found him in the act of killing a lamb, and who reproached him for his cruelty. What! said he to her, would you eat the lamb alive? The lady would never have thought of refusing to eat a slice of delicate roasted lamb, but want of observation and reflection led her to reproach the butcher. Such is the state of education, that ladies as well as others are left in the dark concerning the laws of Nature, and the institutions of their Maker, in which their interest and happiness are so deeply involved.

Besides destruction for the purpose of sustaining life, the impulse is of great importance in other things. For example, a benevolent surgeon could not perform an operation steadily without a considerable endowment of it. All persons who work with edge tools destroy a great deal, in order to bring materials into shape. We destroy coals to obtain heat, and we apply heat to destroy other things for our use and comfort. A thousand examples might be given. The abuses of this propensity lead to great evils; and it is only when these happen that we presume to question the henevolence of the Creator, when we have ourselves alone to blame. Many institutions of Nature seem contrary to benevolence, but only seem; for when we attend to what passes around us, we see so much benevolence that we may rest assured, when we incline to impeach the Creator, it is in ignorance we do

so. Our duty is-not to abuse His bounty, and thus we shall be safe. We owe much of the abuse of this faculty to not educating it early, and promoting the development of its antagonist faculty-that of Benevolence. Children are prone to destroy insects, and to break various articles, and nothing is done to lessen this inclination, because it is not known to be capable of education, and because the love of offspring is too much indulged. From the predominance of this faculty proceed anger, ill temper, rage. Excited by disease, and in a state of insanity, it is most formidable. So little pains are taken to repress this feeling within due bounds, and yet, so annoyed is society by its manifestations, that a multitude of terms are employed to express the annoyance that is felt. A man is said to be harsh, passionate, cruel, severe, fierce, ferocious, savage, brutal, and so forth; and the words beat, bruise, cut, smash, torture, lash, whip, tear, stab, kill, &c. express the acts. It would be better, had we less occasion to use such terms; and early training is the only method to lessen their amount until, by attention to the laws of propagation, children come to have better proportioned brains,

SECRETIVENESS.

The next faculty has received the name Secretiveness, or the instinct to conceal. This faculty is a most important and useful one, while its abuse leads to evil as well as the abuse of any of the gifts of God. The knowledge of the existence of a faculty is, however, the first step, before we can by education guard against its abuses. This one seems to have been appointed as a guard, to prevent the improper expression of the other faculties. Every one knows the mischiefs to society that arise from an unbridled tongue. How could we confide in a friend, if that friend could not keep to himself that which we entrust to him. The very term friendship implies the possession of such a faculty; and the words confidence and fidelity would be useless did it not exist. Thoughts arise, unbidden, to which it would be improper to give utterance, both because injury to ourselves and injury to others might be the consequence. Hence there can be no doubt of the existence of this power of the mind; and that it requires early and sedulous education is made equally certain by its abuses. Cunning is a quality which all moral men detest, and it is an abuse of

this faculty. It is too often mistaken for wisdom; and a cunning rogue is too often esteemed an able man. When this faculty is employed to bring about a laudable end, and when it requires no immoral action, it is in some degree cunning; but this word is commonly applied to the compassing of ends by improper means, suggested by this and other faculties. Lord Bacon wrote on the subject of Cunning: "We take cunning," says he, " for a sinister or crooked wisdom; and certainly there is a great difference between a cunning man and a wise man, not only in point of honesty, but in point of ability. There be that can pack the cards. and yet cannot play them; so there are some that are good in canvasses and factions that are otherwise very weak men!" As there are unprincipled beings in society who are ready to take advantage of their neighbours, it would lead to most deplorable consequences had we not the power to counteract their designs. It would be quite intolerable to every well constituted mind, were thoughts to be uttered in society as they arise; and hence, as thoughts do arise, even in well-constituted minds, which they are aware would give offence if expressed, or inflict injury, this power is given to repress them. Its abuse also extends to injurious expression of things invented, and which are not true. Joined to other feelings, which perhaps can find gratification in no other way, and are unrestrained by moral sense, this faculty in excess leads to the utterance of lies; and such lies are quickly propagated through the instrumentality of weak minds, which are gratified by having something to tell which another person does not know, while, at the same time, they believe what they tell to be true, though they sear their consciences to the injuries they inflict.

The actions arising from this faculty, either well or ill applied, might be illustrated at great length; and some of its manifestations are ludicrous, some hateful, some melancholy. Its uses are innumerable to the artist, the actor, the soldier, the poet; and, in short, wherever design is implied. Its abuses are found in cunning, duplicity, deceit, and hypocrisy; and this is enough to lead to care in the training of the youthful mind. Not that it is to be wholly repressed, as is most absurdly attempted with many faculties by unenlightened teachers, but simply regulated into submission to the moral feelings.

ACQUISITIVENESS.

The next faculty is the propensity to acquire or accumulate. That such a propensity exists is evident, more, perhaps, in its abuses than in the legitimate purposes for which the Creator intended it. He has given us nothing that is in itself evil; it is we that bring evil on ourselves, by abusing God's gifts, and neglecting to guard our children against abusing them. The use of this faculty is to prompt us to provide for the wants of ourselves and families. to gain the means of enjoying superfluities, in the production of which others are employed, and who thus reap advantage from the accumulation of capital. When we have more than supplies our wants, when our labour yields more, then we have wealth; and this wealth is distributed to others who labour; and industry being excited, more and more capital is accumulated, till at length a whole nation becomes wealthy. Society, indeed, could not exist but for the impulse given by this faculty. Various are its abuses. Those who covet what belongs to others, who accumulate wealth and hoard it, so as to render it useless, abuse the power. The crime of theft is prompted by it; but thieves are generally idlers, who will not take the trouble to earn what they need, or who have dissipated what they may have had. The disposition to possess is often so strong in those who have abundance, as to take the form of insanity. Such persons steal from the mere love of stealing, and many such restore the stolen articles. An English lady of rank was known to pocket every thing she could come at, and her maid regularly searched her pockets that the things -she took might be restored. Some children are observed to be greedy, and on the watch to snatch at whatever may be offered to them, unwilling to part with what they have, and never give a share to their playfellows. Such should be made to understand how unamiable this is, and their better feelings should be encouraged, with the view to repress it. Such children are born with the organ of this faculty in an undue proportion, and Phrenology is a great help to discover the predominant feelings, so as to put the trainers of youth upon their guard, and to shew them where to apply their strongest efforts. There is no doubt that during early life certain organs may be repressed in growth by want of exercise, and others cultivated by having it. An infant school, directed by a sensible teacher, who is master of Phrenology, is the scene for this, and is invaluable to society; and it were well that infant-school teachers were encouraged by better remuneration than what they now receive. I do not scruple to say that one teacher of an infant-school, properly endowed by nature, and qualified by his own industry, is worth to society a thousand of those expensive masters who teach mere accomplishments.

CONSTRUCTIVENESS.

The last faculty among the propensities is that which prompts to construct, and need not detain us long. It gives facility of executing, but does not give the conception of things to be executed. It is essential to artists of every description. It may be abused in the formation of engines of destruction, and in forging coin. A man may ruin himself by building houses, and so forth. When manifested by children, this faculty should be encouraged by directing it to useful objects.

SELF-ESTEEM.

· We now come to the second genus of feelings, the Sentiments. The first of the inferior sentiments is Self-Esteem. That this is actually a faculty is proved by its different degrees in different persons. We often see persons esteeming themselves greatly, and holding their heads very high and stiff, and occasionally tossing them, who have no pretensions to set themselves above others, either on account of superior talent, fortune or birth. Others we observe, who have rank, riches, talents, and accomplishments, who are equally remarkable for modesty of deportment. A moderate endowment of this faculty gives dignity of deportment and nobleness of character, when united to superior sentiments. It inspires self-respect, and tends to prevent descending to low and mean actions. Its abuse is seen in pride, haughtiness, presumption, forwardness, arrogance, and insolence; and these are often evinced when talent and merit of every kind are absent. Such abuses, which are most disagreeable and disgusting in well-regulated society, are to be guarded against in the training of the young, among whom its first appearance is sometimes very early. No one employed to teach should have self-esteem in excess. He ought to be able to practise as well as to preach.

LOVE OF APPLAUSE.

The next faculty is sometimes mistaken for Self-Esteemis the Love of Approbation. This is generally much stronger in women than in men, and is shewn even in early childhood. vast deal is sacrificed to gain applause; and in moderate activity it is extremely useful. It produces a desire to please, and renders us attentive to fame. It excites a wish to excel, and produces emulation. When things of importance are its object, its manifestation is called Ambition; where it seeks gratification in trifles it is Vanity. There are higher sentiments, to be spoken of afterwards, which lead men to do good for its own sake, and the applause of their fellow-men cannot fail to add to their gratification, though it will not be their motive to acquire it. It is so feeble in some individuals, that they become indifferent, and care not whether their actions be approved or condemned, and as little for the feelings of others. Joined to a large share of Self-Es. teem, it leads individuals to imagine that applause is a debt due to them by the world for every action and every word they utter, and thus renders them ridiculous in the eyes of others. A moderate regard to the opinion and good will of others, may be almost said to be the chain which binds civilized society together. When strong, this feeling tends to keep others in check, the manifestations of which would be disagreeable, and rouse others into activity that would otherwise sleep. Many persons are charitable without any motive but to obtain notice,—they sound the trumpet before them. Many, who have not talent to perceive that the few are in the right, join themselves to the multitude who make themselves conspicuous, even in folly. Many are religious in their deportment and speech, whose hearts are far from God, seeking his favour less than the favour of men, and join in senseless and hypocritical cabals for the sake of distinction; and thus they may forward the secret views of men who deceive them. while, if they knew the object, they would perhaps condemn it, The inordinate love of applause leads to great evils, as well as to the frivolities of dress and exterior appearance. It exposes men to the arts of flattery; and to sacrifice their fortune in the pursuit of what they imagine gives them consequence in the eyes of the public. Many feed on the ignorance of the public, and, instead of teaching them to understand, lead them by exciting

their ignorant vanity, and nursing erroneous notions of truth-Thus, we see that to manage this feeling in the young, requires very great attention in directing them to seek its gratification only in what is really and substantially good and useful. And here I may notice the common system of rewards and punishments in the management of schools. It is entirely forgotten that children by natural constitution differ from each other in talents and dispositions. Now, supposing two boys or two girls, one of them possessing a good memory and the other a bad one, and that both are equally endowed with Self-Esteem and Love of Approbation. You say to them, Now, children, here is a hymn, if you have it by heart in a quarter of an hour, you shall go to play, and the one that has it first shall have the medal. Here we have the desire for play and the desire for distinction roused into activity in both. But the natural ability of the one child enables it to get by heart the hymn in ten minutes, and it is sent out to play, with the medal dangling by a ribbon round its neck; while the other cannot accomplish the task within the prescribed time. Now, while the one is rewarded for no merit, but for the result of what Nature gave it_for no effort; the other who, being less endowed; actually made the greatest effort, and deserved reward for so doing; is not only punished by the deprivation of play, but its Love of Approbation is mortified, and it becomes dispirited and careless, and in future ceases to make those efforts by which the memory would be improved. Thus is the greatest injustice inflicted upon the individual who really merited reward, and much injury in reference to its future progress. I can speak on this subject as I feel; for in this manner was I treated during the most precious years of my life; and were I now to attempt to compete with some children at school in getting tasks by heart, I should not only not gain a medal, but probably receive a sound whipping; and yet, you see I have the impudence to set myself up us a teacher of grown up men and women. The truth is, that with me, as with many others, my education did not begin till I was at liberty to educate myself. I have witnessed some horrible instances of the utter ignorance of human nature evinced by teachers, who, with the rest of the world at the time, and most of it at the present day, believe man to be a sheet of white paper, on which any thing may be written, or a lump of plastic clay, on which any shape may be moulded they may take a fancy to. The love of approbation is a powerful motive to work upon, and would be of most essential service in educating other faculties if properly managed. In the ordinary mode of management it is, in fact, employed either to be itself nursed into sheer vanity, and minister to pride, or mortified so as to quell all useful exertion. I would have parents and teachers to reflect deeply on this subject, and that they would forthwith proceed to study the true philosophy of man, which exhibits what he really is, and unfolds the mode in which he is to be managed. But I must carry the warning farther.

Mortified Love of Approbation leads to the excitement of other feelings in the manner of abuse. In the first place, dislike to tasks leads directly to dislike of the task-master; and Destructiveness longs for revenge, Secretiveness for escape; and the dislike extends to the individual preferred; and thus had passions are set to work. Nor does the evil rest solely upon the one who is unjustly treated and mortified. An undue sense of superiority is nursed in the mind of the favoured individual, which rouses pride, and a contempt for the unsuccessful condidate. Cupidity is also encouraged; and thus are excited, by the most direct means, those very feelings which parents and teachers are most anxious to suppress. It is not always that favoured candidates at school become distinguished in after life, either for attainments or amiable character. It is the errors of education that create so wide a separation between the aristocracy and the people-the mistaken and ruinous principle of favouritism. The pride of the one. nursed and cherished by a system ruinous to moral health, denies the right of the other to the acquirement of knowledge. other seeks it for itself, discovers that natural endowments are not the gift of art; and, not being rightly guided, comes to hate and to desire to destroy those who, were education placed on a proper footing, would be their friends, and their respected and beloved leaders in all that is great and worthy. When this shall happen, and there is now a clear prospect before us that a system of national education will ere long be founded on rational principles, the people will cease to listen to itinerant and designing demagogues; and high and low, and rich and poor, will say to each other. Are we not men and brethren? and act accordingly, each an honourable part.

CAUTIOUSNESS.

The next faculty we have to consider is that which has received the name of Cautiousness, or Circumspection; and it is considered to be the primitive feeling which we call Fear. This might be supposed to arise from the absence of Courage. But the absence of any faculty cannot produce what is a positive feeling. Accordingly we find that the most courageous persons are not insensible to the presence of danger, or to the risk that may be run by performing certain actions. When Cautiousness is feeble, it allows courage to prompt rash and inconsiderate actions; when powerful, it does not diminish the power to face danger when necessary, but says, " Take care how you proceed." Without a feeling of this sort, the world would be a scene of anarchy; and no man could deem himself safe in the society of his fellows. Circumspection leads him to consider both what his own conduct should be, and what he may expect from others. A small proportion of courage, and a great one of Cautiousness, produce cowardice. This fact, therefore, instead of having permitted the invention of the opprobrious epithets, coward and poltroon, should lead us to regard an excess of fear as a natural infirmity which nothing can prevent; to be compassionated, not contemned. may be a new thing to some of you to know, that a small endowment of courage, and a large one of caution, leads, in certain circumstances in which an individual may be placed, to suicide. Self-Esteem and Love of Approbation being deeply mortified and disappointed, the fear of disgrace, and no prespect of recovering station or character appearing, and courage not being present to sustain the individual against misfortune, he deprives himself of life. This has been ascertained by many observations. An excess of fear may lead to criminal actions in reference to others, in order that threatened misfortunes may be avoided. This also tends to render life miserable, by leading to fear of misfortunes happening which are never to come to pass. This feeling is generally stronger in childhood than afterwards; and it is necessary for the young while their other faculties are only in progress to ripeness, and leads them to take care of themselves. Children in whom it may not be fully developed should not be left to themselves. This feeling is too often brought to a morbid state, by mothers, nurses, and schoolmasters. To save themselves trouble,

they excite terror, and too often at the expense of truth, and nourish that very thing which they would be distressed to see displayed in after life, namely, cowardice. Teachers of religion are not aware of the degree to which they sink human nature; when they dwell more on the fear of hell than on the love of God. If the love of God to us passeth understanding, surely our love to Him should be promoted, as being better calculated to produce faith and good works, than terror of His power. sad mistake also to make God's word a book of tasks. Some even insist on children getting portions of it by heart by way of punishment. This does nothing but excite a dislike to the Bible, and in after life leads to that which is so much dreaded, infidelity; for, when reason comes to be mature, and all the youthful misery that was inflicted by Bible tasks and punishments is remembered, and when it is seen how widely men who profess Christianity differ in the meaning which they attach to various parts of its contents, and how bitterly they dispute about them, the result is either disregard and indifference, or a critical examination of does trines about which disputes are carried on, which possibly ends in scepticism. Thus, I conceive that the origin of not a little of that infidelity, and even heathenism, which is so much complained of as having arisen in modern times, is to be found in making the Rible a school-book, and exciting dislike to it instead of affection. This opinion seems to be confirmed by the fact, that almost all men who have been most distinguished by their reasoning powers, are those against whom the cry of infidelity has been loudest. They may be supposed to have seen nothing in the disputes of theologians but battles about straws, and to have said, "That about which such contentions arise cannot be a revelation," and they set aside the Bible accordingly. I humbly conceive that Christianity will never have its proper effect on the conduct and improvement of mankind, till more wisdom shall be displayed in the mode of teaching it, and above all, until religion shall cease to be used as a bugbear to excite the fears of children. The excitement of such fears lays the foundation of insanity; and I believe that the religiously insane exceed in numbers all others who are in confinement. If, on the present occasion, I should have permitted my own Cautiousness to be so overcome by my sense of duty, as to have made me, by these remarks, give offence to any one, I shall deeply regret it. But I will never conceal

my opinion, that the genuine object of religious teaching is to amend men's conduct, by leading them to obey the Christian commands and precepts, which are the will of God. If that be not the object, I cannot understand why so many commands and precepts having such a tendency are contained in the Gospet. That something is wrong I am satisfied of; for my intercourse with society has been long enough to prove to me, that the commands and precepts of Christ are not better attended to now than heretofore, and perhaps are even more neglected among all ranks of society, though the same means of teaching Christianity have always existed. I may be wrong in attributing this wholly to fault in early education; but this is doubtless one great cause, and it is with this only I have to do at present.

BENEVOLENCE.

We now proceed to consider the superior or Moral Sentiments; and the first of these in order is Benevolence. Men are found to differ in their disposition to do kind and charitable actions. Some appear to devote their lives to charity, while others are selfish and griping. This difference appears in childhood. Nations differ in this respect. That this is an innate faculty is proved also by the observation of similar differences among animals, especially dogs. The moral virtue of charity is placed above all others by the Christian code. Some mistakingly suppose that it consists in the mere act of giving alms, and contributing to public charitable institutions; and many are induced to give from their love of applause, desiring to see their names in subscription lists and newspaper paragraphs. The innate feeling is directed by the Christian code to obey its dictates in secret, and not to let the left hand know what the right doeth. Mere ostentatious gifts cannot therefore be with certainty attributed to this feeling. It shews itself in many other ways. It produces a general kindness of manner, a readiness to oblige, and instantaneous desire to relieve distress the moment it is presented. gives what is called amiability of character, and good nature; and true it is that charity covereth a multitude of sins, a text which, I apprehend, by being in general most wrongfully interpreted, leads to giving with the hand when, as we speak, the heart is not concerned. We are apt to overlook many faults in persons who

are good-natured. How often do we hear actions which are condemned softened down by the exclamation, "O, but he is one of the best-natured fellows in the world." Now, it is in this sense I would interpret the text, that charity covers or conceals a multitask of sins, but by no means secures their forgiveness. Yet I have heard the forgiveness, or absolution, often preached when charity was recommended; and many good people, who would otherwise keep their money to themselves, are induced to give, by the idea that they thus purchase indulgence and pardon,—a doctrine savouring very much of one sad and gross error of the Roman church, which has most effectually misinterpreted the text to enrich itself, while we seem to do so for the better purpose of doing good to our fellow creatures. Elevating and delightful as the exercise of this divine sentiment is, it nevertheless requires education. However beautiful it is in all its forms of goodness and mercy, in man it is sometimes too strong, sometimes too weak. In the latter case it requires encouragement, in the former regulation. When too strong it leads to indiscriminate alms-giving, and thus runs the risk of administering to the dissoluteness of the reckless, and the depravity of the wicked. Joined to a high degree of Love of Approbation, it tends to extravagance and waste, and to the ruin of fortune, becoming a prey to the cunning. It cannot resist tales of distress, real or untrue. It becomes, in short, a dupe to every scheme pretending to be for the good of our fellow-creatures in any shape, whether such schemes have been well digested and reasonable or not. If onehalf of the misery and ignorance of our own countrymen were known to our charitable folk, not a tithe of the money that goes to foreign purposes, and which is seldom or ever accounted for by the itinerants who collect it, would go to such a destination: for it should be considered as a duty enjoined by the Christian code, first to provide for our own. It is therefore a proper saying, that charity begins at home, though it be sometimes applied ironically. When the feeling is strong, it should be led under the dominion of reflection, and the sentiment of Justice, to be afterwards treated of. When weak, it should be sedulously exercised by practice, for preaching alone will do little to encourage it.

VENERATION.

The next faculty has been named that of Veneration. In connection with others, it produces religious feelings, but by itself gives the tendency to venerate and respect superiority in general. It leads up to God; but it inspires respect also for power and worth, and also to regard what is ancient, and what has been mentioned formerly, the wisdom of our ancestors. Many persons collect antiquities merely because they are so, and without any regard to their use in elucidating history.

It may be as well here to depart from the usual arrangement of the Faculties, and consider those the combined action of which produce the religious character. All nations and tribes have been found to have some sort of religion. Some propitiate only the good, others only the evil spirit. Some worship the heavenly bodies, others graven images. The religious sentiment is universal, and is an innate part of the human constitution, from which it cannot be eradicated by human means.

WONDER.

It is evident that, to constitute what is meant by the term religious feeling, there must be something more than mere veneration. There must be something that raises this to a supreme degree. Hence we find, in the human constitution, a feeling that leads to a desire for what is wonderful, surprising, marvellous, and out of the common course of nature. Whenever we begin to study the book of Nature, we at once perceive the result of power and intelligence, far beyond any thing manifested by our own race; and we are led irresistibly to a great First Cause. Man. however, being fond of seeing causes, has, in his ignorance, supposed that this power resided in the heavenly bodies; or, having once made for himself representations of an unseen power, he has come to the absurd belief that the images were actually the beings who were worshipped, and here is the origin of idolatry. Many persons show a great fondness for tales of wonder. They are inclined to give faith to dreams, and to believe in magic, witchcraft. and in every kind of mystery. Miracles and prophecies, whether true or false, find in this feeling a ready listener; and it leads when powerful or ill-regulated, to superstition in all its degrading

forms - distorting true religion; to which, nevertheless, it is, in its moderate state, essential. When the organ of this faculty of Mervellousness or Wonder is diseased, a most melancholy insamits in the consequence. Legislators of all ages, aware of the influence of this feeling, have made use of it to enforce their laws, by speaking in the name of the Deity or other supernatural powers... In our own day, many religious sects exhibit its inordinate action. While, therefore, a moderate endowment of this faculty is essential to the feeling of dependence on unseen power. too much of it leads to every kind of irrational superstition, and too little renders religious feeling weak. Accordingly, it has been observed that some persons are rationally religious, that others carry religion into every thing so as to annoy and disturb society. and others, again, create disturbance and produce uneasiness to their neighbours, by laughing at and mocking the expression of their feelings. Seeing, then, that men become superstitious from an excess of a feeling implanted in their natural constitution. that the same cause in moderation produces calm and sober worship,—and that, when there is a low endowment, there is so little of this feeling as to lead to its being contemned in others, we have at once the best possible reason for warring with intolerance, and rousing benevolence. Let us reflect, that we cannot help having the feelings which the Creator has himself implanted in us, and that we ought to bear with what we may consider as the failings of others. It is unchristian to believe, as many do, that different religious denominations are insincere in their professions. It is true that priests, who in all times have unhappily evinced an inordinate love of power, have turned this feeling into a tool for unhallowed ends. By nourishing it with great assiduity, the priests of Rome enriched themselves by destroying the minds of the people; first leading them to believe what was irrational, and then contriving, by a skilful management, to induce men to sin, with the view to levy money to subserve their own guilt. But it would be an error to suppose that, even in the corrupted mass of the Roman system, there were, or are, no sincere men. There are many, but they are misguided. And it is just as true that there are insincere men among all sects. as that they exist among the Roman Catholics. To make religion an engine of temporal power, or a means to gratify selfishness in any way, whether in the shape of the creed of one sect or

another, appears to be a monstrous perversion of it. But I need say no more to satisfy you that that faculty, which designing men may direct to abuse, requires most careful nurture. As far as my own observation has gone, it appears the most apt to run into excess of almost all the faculties; and when once it gains ascendancy, no power of reasoning can bring it back to the rational homage due to the Great Author of our being. Even well meaning men, when they have this faculty in excess, do infinite mischief, by their exertions to bring the minds of others into the same state. I will not, however, dwell on this melancholy subject. I will only add, that, while the mass of the people is kept in ignorance,-while the knowledge of God's works, in which he is manifested, is hidden from them, they will be ever exposed to the notion that, if they go through certain ceremonies, they may gratify their desires in whatever way they like; and it is too common, even in this country, to see a man in church on Sunday, who will steal your goods on Monday, get drunk on Tuesday, and tell falsehoods every day. This is the usual result of ignorance and superstition; and until knowledge shall be sent widely amongst the people, their reign will continue undistrubed. No other method has yet succeeded any where, and it is time it should be tried. But there is yet another faculty that has a great share in exciting religious feeling, and is one of the greatest blessings we have received.

HOPE.

This is the feeling of Hope, which, it has been well observed, is necessary to the happiness of man in every situation. I forget which poet it is that exclaims...

O blessed Hope, that sets the captive free, While fetters bind his limbs—who to the sick. Shows rosy health, and riches to the poor!

Its existence as a primitive innate faculty seems quite evident. In different individuals it operates with more or less energy, according to the size of its organ. Some are very easily thrown into a state of despair, while, under similar circumstances, others are cheerful, and continue to look to an end of their troubles, and the accomplishment of their wishes. When excessively active, it leads to the most unfounded expectations, even to desire what

is impossible. It is the excessive energy of this faculty that leads to what is called building castles in the air. When feeble, and when Cautiousness is powerful, low spirits, melancholy, and despeir result, whenever any desire is thwarted. Hope leads to the belief, that whatever any other faculty desires may be obtained. It sometimes leads to indolence and carelessness, from the idea that things will come round of themselves. The operation of Hope, however, is not limited to the affairs of this world: for it expands its wings for a flight to another region, believing and resting in the sure promise of Christianity that there is another and a better state of existence. Hope is desirable; but there is nothing more dangerous to an individual than a disposition to be credulous. An excess of the feeling of Wonder leads to this in one way, and that of Hope in another; and when both feelings are strong, credulity is the more easily imposed upon. Hence it is of importance to regulate them both in early life, lest, on the one hand, the individual should fall a prey to designing men, or, on the other, injure his prospects by trusting to improbable events; or, overwhelmed by both, destroy his own peace of mind, and disturb that of others. We can now see how the religious feeling, properly so called, is produced. The feeling of Wonder leads to the conviction of unseen power; and this, by the way, is a strong argument for the existence of a Supreme Being: Veneration leads to the adoration of that power: and Hope fills the mind with confidence in the object of veneration fulfilling all our reasonable desires, even to the enjoyment of eternal happiness, if we exert ourselves to discover His laws, and to obey them. The existence of an innate faculty of Hepe is a strong proof of a future state of existence. For as we cannot think of the Creator otherwise than as of a perfectly Benevelent Being, we must conclude that, if there was to be no such state. He would not have permitted us to hope for it.

We now also see why, when well regulated, the faculties of Wonder, Hope, and Benevolence, are held up by high authority as feelings to be anxiously cultivated; for it is they who produce faith, hope, and charity. The more we inquire into and study our own nature, the more clearly are we satisfied that the Christian morality is not, as too many are apt to think, too elevated for human nature. The Creator has implanted in us such powers as, when duly cultivated and regulated, lead us to believe it to be

ne chimera that man may, and indeed will, improve Mines the last the kingdoms of this world shall merge into one great and uniformly moral and religious family.

speir reemt,

JUSTICE.

the best, to

The next faculty which I propose to consider is the sense of right and wrong, of Justice, or, as it has been named, Comolon. tiousness. This faculty does not discover to us what is right si what is wrong, which is the province of other faculties, or rather of a combination of them; but when once that which is right is determined, this feeling binds us to prefer what is right. who has more of the lower propensities than of Benevolence or Veneration, will call that just which a person with the endow. ment reversed will call unjust. It is said in the book of Proverbs,—" Every way of a man is clean in his own eyes, but the Lord pondereth the heart." Instances have been known of criminals robbing the rich and giving to the poor, and such individuals will justify their actions. The combination of the other faculties with Conscientiousness, accounts for the various principles which regulate the enactment of laws, and the degrees of punishment awarded to their infraction. Few will maintain that the infliction of bodily injury without cause is just. This being determined to be unjust, a proper endowment of the faculty of Conscientiousness will prevent us from inflicting injury even to benefit ourselves. A man with good Benevolence and Conscientiousness may, under the sudden and violent excitement of passion, kill another; but as soon as passion cools, his prevailing character will contradict the act, and he will bitterly repent. When Conscientiousness and Benevolence are feeble, there will be no repentance, there can be none. Particular faculties may feel disappointment, but repentance is different,-it is sorrow for having committed an action which we know to be wrong, and this is given by the faculty now under consideration. From the circumstance that the natural faculties of man have not been understood, and consequently left uncultivated, they are less under the guidance of a sense of justice than they ought to be; they think more of themselves than of others. Therefore, as there are so few who, in the words of the Apostle, are a law unto themselves, it has become necessary not to trust to the conscience of men, but to

enact laws, which determine what justice is, and to enforce it. Laws, however, are too often founded on what our moral feelings, when consulted, condemn as erroneous principles. Men differing in mental constitution differ on such points, and debates en-As it is necessary to legislate, the majority is allowed to do When once law is established, then Conscientiousness condemns its infraction, although reason may tell'us that the law is imperfect, or even unjust in its operation. It is to be feared that many ages must pass away before the law will be unnecessary, but it is our duty to hasten the blessed time, if it be destined ever to come. It is a lamentable, but an unquestionable fact, that this important faculty is far oftener found deficient than any other. Selfishness is the ruling principle of action, and conscience is allowed to sleep, and is not so often nor so easily pricked as many are inclined to believe. It is true that a corrupt tree cannot bring forth good fruit; and, as St Paul says, " the natural man receives not the things of the Spirit of God, for they are foolishness unto him, neither can he discern them because they are spiritually discerned." If, then, we see it is necessary to cultivate that by which men may come to discern what is just and right, let us no longer neglect the study of man's nature, and the cultivation of this faculty, which is so low in the race at present. Children, before they are educated, shew great differences in refarence to this faculty of Conscientiousness. Some of them are pleased when justice is spoken of, and others are indifferent. In the play-ground of an infant school, (and without an ample space for this such a school is useless), these differences soon become visible to a master properly endowed with perceptive faculties: and a judicious one will know how to proceed both with precept and example. Every faculty improves by exercise, and this is one of infinite importance to the individual and to society. We can now explain how it happens that religion and morality are. sometimes separated in different individuals. A man may feel the religious impulse in full force, and yet have but little sense of justice. This may assist in explaining the apparent anomaly of persons assuming the religious habit whose lives are by no means exemplary. I fear that, in the Roman Church, what we read about priests, monks, and friars, is but too true; and it proves that the one feeling may exist without the other, and lead to confidence in ceremonies, and forms, and gifts, and penance, for wip-

ing away sin. Again, a man may have the strongest feeling of justice, and but little of religion; such persons are also frequently met with. All this, however, ought to convince us that it is uncharitable to deal in denunciations of such men. All the abuse that can be hurled against them is useless. The Ethiopian cannot change his skin, nor the leopard his spots. The business of. the true Christian is not to revile, contrary to the command of his Master, but to exert himself to turn men from the error of their ways by every means within his reach; but reviling is not among them. The improvement and enlightenment of the understanding, so that it shall be our guide, under the controll of the moral sentiments, are the legitimate means. I say, under the controul of the moral sentiments, for without this the intellect may be, and too often is, grossly misapplied; while, on the other hand. the sentiments without intellect act blindly. And when the nature of man's constitution shall come to be known, then not one will be called to teach either divine or secular things, who is not by nature fitted for the important office. We cannot make the branch of a tree that has grown crooked grow back into a straight line, but if we deal with the sapling it will bend to our will. Train up a child in the way he should go, and when he is old he will not depart from it. How very few have reflected that error is perpetuated by ill-directed education, or the neglect of it. Do we not know that the Jesuits attended to this, and selected their pupils, and twisted their growth, to make them as themselves? Is it not known that this means is employed for every trade and. profession? and for that of priest also? Why not use it to effect the general improvement of the whole of the human constitution, and to render the better part of it more fruitful, and the worse part barren? No Jesuits can exist where the people are educated and enlightened,—no tricks can thus be played upon them. All superstition, and all immoral religious systems, will vanish, and pure Christianity will flourish, undisturbed by sectarian spirit.

PIRMNESS.

We now come to the faculty which has received the name Firmness. It is observed of some persons that they are easy to be entreated, that they are infirm of purpose, and yielding, and wavering, and unable to come to any determinate resolution. Others, again, are found to be the reverse. They will not yield to entreaty, they are fixed to their principles, and will not deviate to the right nor to the left. They attend to nothing but the object immediately before them,-they are uniform and steady in their conduct, and they may be depended on when they engage to do any thing,-they are, in short, firm. When it is too active, this faculty produces stubbornness, infatuation, obstinacy, disobedience. When a man who has it powerful, and Conscientiousness deficient, resolves to attain an end by the commission of crime, he will lay his plans, and persevere even through adverse circumstances, till his purpose is attained. Such a being, especially with much Self-Esteem, will never acknowledge himself in the wrong; and if a considerable endowment of Secretiveness be added, he will never confess his crime, but declare himself innocent in the face of the clearest evidence, and persist in his declaration. This faculty is of great value when within the bounds of moderation, and directed to what is useful and praiseworthy. Deficient children should be encouraged to persevere. by shewing them some desirable object placed within their reach. and to be obtained by overcoming obstacles. But care must be taken not to set more than one child to work for the sake of the same object, for this would lead to injustice, by allowing a child well endowed to overcome and mortify his weaker schoolfellow. and retard progress instead of forwarding the object in view. phrenologist can tell at once which of several children are the most persevering. A schoolmaster, for example, may place an orange within sight, put various obstructions in the road to it, some of which have to be scrambled over, some to be crawled under, so that the road becomes tortuous, and a stone or something else has to be removed, and so on. He then selects a persevering child, shows him the orange, and tells him he may have it for the trouble of taking it, and it will be got at to a certainty. But while the persevering child is at work to obtain the prize, the less persevering should be made to look on, and if the master applauds when each obstacle is overcome, the others will instinctively applaud too, and will regard the affair as diversion. Another orange being placed, a less persevering child is to be set to work; and thus, by gradually increasing the difficulties in this and other contrivances, a weak organ will become stronger. The example of the well endowed should always be exhibited, but never so as to mortify.

IDEALITY.

The next faculty to be noticed, is one which you may find it more difficult to comprehend than any of the preceding, especially as I am under the necessity of compressing my observations as much as possible; and my purpose being chiefly to induce you to go farther, and to consult books, and to reflect upon the principles I briefly refer to. Some persons are called sanguine. Their ideas are perpetually running after what ought to be, and they cannot rest satisfied with what is. They clothe every thing in its fairest suit, and every thing they desire to be perfect. They become easily exalted; express themselves warmly, in lofty words, and rapturously. All is what we call ideal, and the feeling that excites this warmth and enthusiasm has been named Ideality. It is the basis of poetry. Many who have a full endowment of this, write and speak true poetry, though not expressed in verses, or aided by the jingle of rhymes. Poets delight in pourtraying imaginary life and scenery, and this in the most florid diction. In them the faculty is strong; but all who have it so are not necessarily poets. The faculty exerts its influence on all the other powers. A painter endowed with a moderate share of it, gives us simply portraits; with a larger share his portraits have a certain air or action in them: and when he is still farther endowed, he becomes an historical painter, and his productions partake of sublimity. It adds vastly to the power of the musician, whether in composition or execution. In short, in whichever way the more prominent faculties lead, this faculty of Ideality tends to produce enthusiasm. Till I was writing these sentences, it had not occurred to me that this faculty might, and probably does, constitute a portion of the religious character. But not recollecting whether this has occurred to any one else, I may be mistaken. Yet it strikes me, that, since it excites a desire for perfection in all things, it leads to the contemplation of the perfection of the Creator in power, wisdom, and goodness; that, in searching into His works, it rouses an extraordinary admiration of them, and directs us at once to their Author. Many view the works of art and of nature with equal indifference, and I conceive that this faculty leads to genuine and lively admiration of both. Children frequently evince the operation of this faculty without being educated, though it is not commonly noticed. Enthusiasm may be carried too far; and looking for what cannot be realized leads to despondency. It is seldom, however, that this faculty needs to be repressed; and a strong endowment of it leads to excellence in all the fine and mechanical arts. Even in the manufacture of very ordinary things, a workman having a good share of the feeling, will give the article a neatness which another does not seem to know how to produce.

WIT.

A good deal of discussion has arisen in regard to the true function of the faculty which was originally named Wit. As we understand this word, it is evidently connected with intellectjest is made and we laugh, and even those laugh who cannot make a jest or say a witty thing. Some, however, do not laugh even at great wit. Repartee, and a play upon words, require quickness of perception and ready expression. There are also what we call practical jokes, in which the intellect has no concern, but which make us laugh notwithstanding. Caricatures make us laugh. It is probable that the faculty in question gives a disposition to be merry without regard to what excites it. Some persons can scarcely speak without laughing, and do so heartily when there is nothing apparent to excite the laugh. The faculty seems to make people inclined to be pleased with every thing; and I am inclined to agree in the name Mirthfulness. which is a word peculiar to the English and German languages, seems to be an effort of intellect designed to produce laughter in others. But I must not dwell on metaphysical distinctions. You will agree, I doubt not, that some persons are more witty than others; and, therefore, some must have a peculiar mental endowment more powerful than others. It is a happy disposition, and confers much pleasure and amusement when properly directed.

IMITATION.

The exactness with which some persons can imitate the actions, voice, and mode of expression, of others, leads to the supposition that there exists a special faculty of Imitation; and experience has determined that it does exist. It is more active in childhood

than in after life, and we observe that children learn a great deal by imitation. Those who are largely endowed with it use gestures when they speak; and I have seen individuals who could not sit still while describing what they wished quietly in words, but got up and exhibited what they meant in action. Not only do they imitate their fellow-men, but the cries and actions of animals. They are fond of acting, and of dramatic representations; but, of itself, the faculty does not constitute an actor. bination with other faculties, it determines the inclination to act, but the other faculties determine the line of characters to be acted. Actors with a good power of imitation, often fail in attempting to delineate what they do not feel. This faculty does not confine itself to acting, but to the arts. In drawing and sculpture it gives ease and expression. That this faculty is useful cannot be doubted, since it enables us to avail ourselves of the discoveries of others, and to attain useful ends by doing as others do, and is a source of much pleasure and amusement. But this useful faculty may also be misapplied and abused. For example, it is abused when the failings and infirmities of others are imitated for the purposes of ridicule and mockery. It is also abused when employed to compass immoral purposes of any kind. When other faculties are well regulated, and the moral influence powerful, there is little risk of this being abused.

We now come to the second division of Faculties, the INTELLECTUAL. Without their assistance all the faculties we have been considering act blindly, and from mere impulse, as many of them do in the lower creation, and too often are suffered to do so in the higher. Unless guided by intelligence, the very highest sentiments continually err. It is owing to the want of cultivated intellect that the savage worships stocks and stones, and multitudes in civilized countries are led to blind submission to the dictates of weak or designing priests. Religious despotism interdicts the exercise of reason. Reason is given by God to mankind, not to be hoodwinked, but to be employed to draw us nearer to Him. Unenlightened obedience is nothing better than the obedience of a horse to the bridle, er of the dog to the whistle.

Nor can the fear of the law be an enlightened source of obedience. Neither is blind belief, not laid on the foundation of reason, what we can suppose acceptable to the Creator. Whatever is done to enforce blind obedience is tyranny, and is calculated only to perpetuate error, and evil, and misery on mankind. Yet this tyranny is extensively exercised in our own country, and the consequence is, that morality is not improved, and religious observances and creeds become less respected, as is evinced in the agitation of the present times. We shall not have peace until knowledge is the portion of all, and the reasoning powers called into action to determine what is best for society. I should begin by considering the External Senses, which serve as the means of communication between the mind and the external world. The subject is very interesting, but would lead us too far. The importance of their being in a perfect state is sufficiently obvious. We shall therefore, pass on to the consideration of the first division of the Intellectual Faculties, the Perceptive, which notice the existence of external objects and their physical qualities.

INDIVIDUALITY AND EVENTUALITY.

We often meet with persons who know something of every thing that passes around them—who desire to know every thing—possess a great store of facts, individual and eventual—and are very agreeable in society, being what are called clever or brilliant persons. Such persons, however, may not be profound, or capable of making discoveries for themselves.

The faculty which leads to the knowledge of what is—of simple existence—is named Individuality. The kind of disposition which observes what passes, arises from a faculty which has received the name of Eventuality. These excite all the other faculties to contribute to their gratification. They are essential to what we call attention to what is passing, and contribute to safety. There is greater curiosity, or inquisitiveness, among children than among adults. They are always calling out—Let me hear, or Let me see, or Let me taste, or smell. They should always be indulged in this, and the properties and qualities of objects distinctly explained to them. This not only makes them happy and contented in the mean time, but affords them a large stock of knowledge, that will greatly est-

sist them in after life, and save them vast labour. Teachers, as well as parents, are in general too ill provided with knowledge themselves to be able to gratify the natural curiosity of children; and, to hide their ignorance, too often answer an innocent question with a rebuff. I remember expressing a curiosity to know what soap was made of, and got no satisfaction; my curiosity was damped; and it is a fact, that I did not know what soap is made of until I attended a course of Chemistry, in the sixteenth year of my age. It is foolish to say to children that it is too soon for them to know what they ask for, as they cannot understand it. Try them, at all events; and if any thing occurs which they do not comprehend, let them understand that their powers of mind will increase as they grow older, and that, if they be careful of health, and attend to what they are advised to do, the time will come when they will be fully gratified. Satisfy them that education must be gradual and they will be patient; and probably, when they are anxious, they will ask, not a direct question, but, Do you think I could understand such or such a thing, if you were to explain it to me? Again-parents, if they do not know what children ask, ought never to answer erroneously, but at once confess ignorance, and promise the child to refer to some person who knows, or to a book. But the truth is, that to be a good teacher of children requires, I may say, great and universal talent, and a most extensive store of knowledge. Other teachers require a knowledge of only one branch; but a teacher of infants must know every thing; and, therefore, it is hoped the nation will, in the plan for national education now contemplated, provide amply for such men, and seek for them every where. Our present infant-schools are a very great step; but, to be perfect, many steps have yet to be ascended. It is pretty well ascertained, that on the education of the first six years of life depends the future health and the future character. For such an end no pains, no expense, should be grudged; and, from the labours of the Education Committee of Parliament, we may expect an improvement in education of vast extent.

FORM.

Of qualities, the faculty of Configuration or Form recognizes one. Nothing can exist without having form; and the faculty is

exhibited in strength and weakness as others are. Some persons remember faces which they have once seen, and know persons again in this way. Others forget them. Some even can tell who persons are at a distance by their form and manner of walking. By means of this faculty, we can tell whether a portrait is like the original, and persons differ very much when tried by this test. I have known persons declare a facsimile not like the ori-Some nations are remarkable for this faculty; the Chinese and the French, for example. The French are more skilful than the English in the invention of patterns, and hence their fashions have long taken the lead. Without it the study of natural history could not be successfully attempted, nor any branch of knowledge or art in which it is necessary to distinguish forms. This faculty leads us to give form to every thing which occurs to us, or of which we are informed. It is of essential use, and affords much gratification.

SIZE.

The next Perceptive Faculty is that of Size. The notion of size, or of dimension, is different from any belonging to Form, because two things having the same form may differ vastly in size. Some persons who have this faculty powerful, can guess the various dimensions of an object, or distances, with wonderful facility and exactness. Hence it is worthy of being cultivated. It is of essential use to architects, and mechanicians, and artists generally, as well as to geometricians.

WEIGHT OR FORCE.

The next faculty has been called that of Weight, or Resistance, or Force, which last seems to be the most general term that can be employed to denote it; for weight is the force of gravitation, and resistance is a sense of something opposing force. By comparing degrees of the force of gravitation excited on different bodies, or different masses of the same body, we come to know what we call their different weights. We commonly measure forces by weight, by ascertaining what weight is necessary to overcome resistance. It is the activity of this faculty that enables us to learn by experience to judge what amount of force is

needed to overcome any obstacle, or effect any purpose. We do not, after experience, employ so much force to move a ball of cork as one of lead. The faculty, then, seems to give us the knowledge and use of muscular force or power, and of all other forces, whatever may be their origin, and teaches us to estimate and how to use them. The sense of touch is apparently resolvable into that of force, as it operates only by resistance to force. But I will not detain you with such discussions. If you look into the Phrenological Journal you will find some papers on the subject by my friend Mr Simpson and myself, and I believe we are at last pretty nearly agreed.

COLOUR.

The next faculty is that of Colour. That there is a special faculty for colour seems indisputable. Many persons have been known whose vision was perfect in reference to light, who could not recognise one colour from another. I have myself been acquainted with individuals who were deficient in this quality. Some can distinguish only white and black; others cannot distinguish blue and green. There is a person now living in Edinburgh who was bound an apprentice to a draper, but from the extraordinary mistakes he made in respect to the colour of goods which customers wanted, he was obliged to follow another profession. It often happens that a person can draw very well who cannot paint, producing only daubs when the attempt is made. Though this faculty perceives colours and their harmonies, it does not give the power of applying them. That depends on higher intellectual faculties; and, where they are weak, we see colours applied and arranged without taste, and in a glaring incongruous manner. We see this sad want of taste in the vile manner in which prints hung up in schools are daubed. It is better to have the prints without colour, or well coloured, otherwise the teste of the young people may be sadly vitiated. I do not speak of taste in reference to painting or drawing alone, but to the tasteful use of colours by those who may become artists in pattern drawing, enamelling, paper staining, calico printing, painting on earthenware, &c., in all of which good taste is requisite; and therefore I am decidedly of opinion that ill-coloured prints should be forthwith banished from schoolrooms, and really good ones substituted,

otherwise harm will be done to this faculty instead of its being improved. When a child is observed to hesitate and mistake one colour for another, it should be ascertained whether it is because it forgets the name, or cannot distinguish the colour.

LOCALITY.

We now come to the intellectual faculties which perceive the Relations of External Objects. The first of these has been named Locality, or Relative Position, which last term conveys its function most distinctly. This faculty was first recognised by the observation that some persons could find their way by recognising places where they had been, while others either could not, or could with difficulty. To find one's way, it is necessary to mark the position of objects relatively to each other. This faculty is necessary to astronomers, whose science could not advance without a careful observation of relative positions. To navigators and geographers it is essential. It gives, when active, a propensity to travel. Some animals possess this faculty in an extraordinary degree, and you must all have heard stories of dogs finding their way in a wonderful manner. It is this that seems to be periodically excited in migrating animals. It also gives the pleasure derived from scenery; and is indispensable to the painter who composes landscapes, that he may give all the objects such relative positions as make them harmonize in their forms and colours. To such persons as are little endowed with this faculty, pictures, however interesting to others, convey no satisfaction, and they appear to have no perception of perspective. Its uses, then, are apparent. When over active, it produces restlessness, a desire for constant change of place, and for new scenes. It is a faculty that merits cultivation in childhood, when it appears deficient especially. It is necessary in the sublimest of the sciences, and is a source of much instruction and pleasure.

NUMBER.

The next faculty is that of Calculation or Number. It is well known that individuals differ greatly in their powers of calculation. Some have had it so strong and active as to have been publicly exhibited. One of them, the celebrated George Bidder,

told me that his power became known to himself in consequence of his having been behind some of his schoolfellows in repeating the multiplication table, which they did by rote, as many do; but he was not so quick in getting things by heart. His attention having been roused by fault having been found with him (I forget whether he said he had been punished), he found that he could calculate each step of the table with great rapidity, and by doing so repeat the table as fast and faster than others. He then. by mental processes which occurred to him, came to solve questions without the assistance of written figures, and consequently not only got far before those who had rules merely by rote, but excelled and astonished his teachers. I used to have Bidder frequently at my house, and often surprised my guests by making them ask him questions out of a ready reckoner, which he solved almost before the questions were uttered. He would mentally solve in a minute such a question as this: Suppose a wheel of 4 feet diameter to run on a road and make 50 revolutions in a minute, how far would the carriage to which it was attached go in 10 hours? Of the vast use of this faculty in the ordinary affairs in life I need not speak. No one doubts the importance of cultivating it, and much attention is paid to The apparatus of Wilderspin is admirably adapted to giving notions of number, to making children learn certain facts related to number in a better way than altogether by rote. But I think very young children may be induced to exercise the faculty of number in a more efficient way than merely getting words, the names of numbers, and the results of calculation which are facts. The true exercise is to make them find out something like method and combination, and I think this may be done, at least if I may judge from an experiment I once made in the Dingwall Infant school, and of which I believe the master has availed himself. It was this; the children were singing out the pence table, and I stopped them at-thirty pence is two and sixpence. How do you find out, children, that thirty pence is two and sixpence? I said. They all looked at me with very grave and anxious faces, and I paused a while, seeing that their minds were at work. I then hinted the first step, by saying, Tell me how many pennies make a sixpence. Six, was instantaneously screamed. Well then, children, how many sixpences are in a shilling? Two, were the ready answers. Now, then, how much

is two sixes? Twelve. Very well; How many pennies are therein a shilling? Twelve. Very well; you see that because six pennies make a sixpence, and because two sixpences make a shilling, you have only to add two sixes together, which makes twelve. Now, if twelve pennies make one shilling, how many should there be in two shillings? This seemed to require a little time, but at length one of them sung out, twice twelve is twentyfour, and the rest sung out too, happy that the discovery was made. Well then, children, we have got as far as twenty-four; now tell me how many do you want to make up thirty? Very soon the answer was given, six. Well then, you see that when you think how many pence are in a sixpence, and in a shilling, and in two shillings, you find out how many pennies make two shillings and sixpence, which we also call half-a-crown: because five shillings make a crown, which is sixty pence, because five times twelve make sixty. Now remember all this when I see you again. Here the matter ended. I have no doubt whatever that the very best form of teaching is conversation; any thing like tasks being altogether abolished. This no doubt requires high talent and accomplishment in a teacher, and an infant school teacher needs more than any other; but no pains nor expense should be spared to procure the best qualified; and I rejoice to think that the subject has been and still is under the consideration of Parliament.

ORDER.

The next faculty we come to consider is that of Order, or, perhaps, Symmetry is the proper name for it. We observe some persons exceedingly careful to place things and keep them in order. Even children are noticed who shew a disposition to restore things to their usual places where they have been removed. This disposition, however, does not exhibit the entire function of the faculty. That is exhibited in the arrangement of things in a determinate order, according to their use and form. For example, suppose there were a number of figures, all of different heights, this faculty would give the tendency to place the shortest first, the next in size second, and so on to the tallest. Suppose, again, that there is one tall figure and two shorter of equal size, then the tall one is placed in the middle and one on each side. The

operation of the faculty is also observable in architecture, and in the arrangement of walks in pleasure grounds, planting trees, &c. A ludicrous example of it is narrated of a gardener, in whom the faculty was so powerful that the word uniformity was always in his mouth. On one occasion, a person had been condemned to stand in what was called the jougs, or pillory, and the post happened to stand on one side of a gate leading into the approach to the place where the gardener served. So great was his love of uniformity, that he had a jougs erected on the other side of the gate, and bribed a man to stand as long as the culprit was exhibited.

The desire to see a thing completed appears to belong to this faculty, and also what the English call tidiness—a word for which, I regret to say, there is no equivalent in Scotland. Cleanliness is an essential part of tidiness. This faculty, then, appears most useful. The encouragement to cleanliness promotes health; and a habit of it is agreeable to all around us.

TIME.

There can be no doubt that the human mind takes cognizance of time, or duration. That there is a special faculty for this is proved, as in other cases, by differences in the perceptions of different individuals. Some can guess with great exactness the time that elapses between one event and another, while others cannot approach to correctness. Some can perform certain actions exactly in the same time with others, and some cannot keep time to music in dancing, nor when they attempt to play on musical instruments, or to sing in concert. Much expense is often uselessly incurred in teaching music to young persons deficient in this faculty and the next,—that of Melody, or Tune.

TUNE.

That this faculty exists independent of the sense of hearing, is evident from the fact, that persons who hear may be indifferent to music; while others are so fond of it, as to give up their whole time to it. It is a faculty from which so much rational and innocent enjoyment may be derived, as to make it very desirable to cultivate it.

ARTIFICIAL LANGUAGE OR SPEECH.

We now come to the faculty of Language, ignorance of the existence of which has led to vast errors in education. language is common to man and to animals,-at least the natural language of faculties possessed by both. A dog, having the faculty producing anger, knows its expression by the sign and sound of it in his master. Artificial language, which is the means of gratifying all the faculties, is peculiar to man. Into the philosophy of this subject I do not mean to enter. By means of this faculty, audible or visible signs were invented to express ideas; and to employ these signs, we must have organs of voice, sight, and hearing. I should have stated before, that each faculty is apparently more or less perfect in different parts of its functions-In this of Language, we find some persons deficient in memory for names, as others may be for dates. Various qualities of objects may be remembered, and the particulars in which one thing differs from another, while their names are forgotten. Disease, or injury of the part where the organ of this faculty is placed, produce failure of memory, and even loss of words has occurred There are persons who cannot speak more than two or three words at a time, who are deemed idiots, and they are so to a certain extent; but while the cause of imbecillity is sought for in the tongue and other organs of speech, it is to be found in the brain. All the organs of speech may be perfect, and yet the power to command words to express thought and feeling be absent. This faculty informs us of arbitrary signs, those called letters and words, enables us to remember them, and facilitates all exercises connected with words. Admitting this faculty, then, and that it is powerful in some and weak in others, it is evident that in learning languages, one person may excel another in a great degree, by mere force of natural endowment. But schoolmasters have acted as if deficiency in this faculty could be made up by the free use of bundles of birch-twigs or straps of leather, applied to tender skin, so as to make it smart. A boy with this faculty well developed will necessarily excel those who have but a mode. rate share of it. If, then, ability is given by Nature, why should a boy be rewarded for possessing what he did not obtain for himself, and another be punished on his account? That the world should have gone on so long before facts of hourly occurrence led

to the observation, that both endowment and deficiency originated in natural constitution, is a matter of surprise. Nay, so extraordinary have been the effects of our ignorance, that deficient subjects have been thus most neglected, while they were those to whom the greatest attention is requisite. When I was at school it appeared that the master considered the boobies, or dunces, to have been sent to him only to be flogged. I have known many dunces, into whom flogging could not drive Greek and Latin, live to be men distinguished for many more useful acquirements, and for being useful members of society, while mere linguists were left far behind by these same supposed dunces. It is not to be denied-it would be absurd to deny-that the acquirement of modern languages is extremely useful, and that of the dead languages an elegant accomplishment; but to devote six, ten, or more years, the most important of life, to dead languages, is exceedingly irrational. The faculty of language ought to be assiduously cultivated, and the memory of words particularly. But this is to be done by satisfying the pupil of its utility; and, with such as cannot understand utility, coaxing and reasoning, not punishment and tasking, are to be employed. By coaxing, I do not mean bribery; though there is no harm in that, provided that bribing one does not injure another. Much may be done by making learning a thing of amusement. And here it may be remarked, that I have seldom met with a schoolmaster without a grave face, and apparently almost incapable of smiling. If ever it falls to my lot again to chuse a schoolmaster, the chief test of his qualification shall be his being able to tell a funny story, and being disposed to laugh and make merry. The corners of his mouth shall turn up, and not down. Instruction should be a thing of delight and amusement, not of labour and terror. I have suffered, and many of you may also have suffered, much terror, labour, and pain for the sake of the dead languages; and have gained nothing from it in after life. Many of us can be useful to our fellow creatures though we may have entirely forgotten Greek and Latin, and though we know no other but our mother tongue. Nevertheless, it cannot be doubted that the faculty of language ought to be sedulously improved, the usefulness of modern languages inculcated, and, as accomplishments, Greek and Latin may be acquired; though, if morality be regarded, there will be found no means of guarding or improving it in the school

literature of Greece and Rome. It is supposed that a clergyman becomes a better Christian than his neighbours by learning to read the New Testament in Greek. I wish all would agree in how it should be translated, and, when translated, in its meaning and extent; and the world would be more peaceful.

COMPARISON.

We now come to the RELFECTING FACULTIES, which are two in number, Comparison and Causality. With respect to the faculty of Comparison, it may be better understood by the word analogy; for every faculty compares within its own sphere. This faculty, however, compares objects cognised by different faculties, and compares things with one another which have no actual resemblance. For example, the faculty of colouring compares one colour with another: but when we compare the harmony of soft sounds to the blending of the colours in the rainbow, it is the faculty we now speak of that makes the comparison. It compares things of the most opposite kinds, and perceives likeness which takes the form of analogy. For example, the death of a good man may be compared to a fine sunset. The Scriptural analogy between the kingdom of Heaven and a grain of mustard seed, is prompted by. and addressed to, this faculty. Poetry is full of it; and those orators are most popular who deal in fanciful comparisons; because the multitude is better endowed with this faculty in general, than with the next faculty we are to consider. Every orator or preacher who has more of this faculty than of that which leads to strict logical reasoning, deals in metaphors, similes, and figures of speech, according to the suggestions of such of his other faculties as may be most prominent. The celebrated Dr Chalmers, whose faculties for Mathematics and Astronomy predominate, generally uses figures of speech derived from the sciences. Many persons are thought profound reasoners who do nothing more than state analogies; and, because they strike the hearers as reasonable, an inference is drawn which strict reasoning might not warrant. Nothing deceives so much; and hence orators and lawyers before a jury make ample use of it; and, consequently, truth suffers not a little on some occasions, while on others it is powerfully enforced. A speech or a sermon is scarcely attended to when it is an argumentative detail; but when full of illustrations, and

tropes, and figures, it is to many minds improved in perspicuity, and carries all before it. Two speakers, skilful in the use of analogy, speaking on opposite sides of the question, puzzle the listeners exceedingly, when they do not apply strict reason or the feeling of justice to what they hear. King James the First of England, having listened to two theologians on a disputed point, scratched his head, and exclaimed, "The deil's in the carles, they're baith in the right."

While this faculty of Comparison catches ideas from the perceptive or knowing faculties, and deliberately institutes an analogy or a simile, the faculty of Ideality clothes its expression with animation and fire, and gives all its charms to oratory, and no small share of its influence. Comparison may be said to be a candle, which throws a quiet and sufficient light upon an object, but Ideality converts the candle into a lamp. It may be said to resemble the lyre of Timotheus, which raised the soul to heaven; while Ideality is the organ of St Cecilia, which drew an angel down. We speak of the softness of charity, and of hardness of heart; and a thousand instances of Comparison, and the enthusiasm of Ideality, will occur to you.

This faculty, like every thing arising from the Creator, is eminently useful in exciting our notice of things, and their properties and qualities. It seems to lead us to say-This will do well, but that will do better; and makes us choose the best. To lead the young to compare one thing with another, imparts pleasure to their minds, and adds vastly to their knowledge. If we see two masses of matter before us, exactly similar in size, and shape, and colour, they may yet differ in other qualities, which it is necessary for us to know. Comparison, then, prompts us to touch them, and this informs the faculty of Individuality that they are both hard or soft, or one hard and the other soft; and farther knowledge is given through the senses of taste, smell, and hearing. Although this faculty is more generally possessed powerful than any other, it loses its energy by neglect. Exercise must be given to it, else it will not afford the benefit intended by the Creator we should derive from it.

CAUSALITY.

The last faculty we have to consider is named Causality, from

its function of giving the idea of the invisible bond between cause and effect. It satisfies us that every phenomenon must have a cause, and leads us, step by step, to the First Cause of all. And not only does this refer to the phenomena of matter, but to the motives and causes of action in ourselves and fellow creatures. The faculties of Individuality and Eventuality apply themselves to judge from facts, Causality from circumstances. Hence, on the trial of a culprit, a jury endowed with much Individuality, and little Causality, will hardly convict on circumstantial evidence. If chusing a jury by ballot could, on occasion, give us the men endowed with the largest share of Causality, it would be valuable. As things are, it is not uncommon for trials in civil causes to be removed from a place where it is supposed justice has not been done to another. Juries ought not to be chosen by ballot, but on account of intellect; and the old mode of leaving the judge to select was better than the present, as he selected men who, from their known estimation for discernment, were best fitted for a particular case. This faculty enables the mind to penetrate deeply into every thing; and, in argument, will not admit of any thing but the strictest sequence. When, however, it is not supported by Individuality and Comparison, it carries us into the region of speculation, far away from the concerns of life. When Causality is feeble, the mind cannot enter into the abstractions of science, or the intricacies of business. In such a case, remote and contingent things are not perceived, and the profound investigations of Causality are deemed little better than dreams and impossibilities. In this we find the cause of imperfect legislation and inefficient government. The ambition which Love of Approbation excites, leads men to findertake what they cannot perform. Instead of examining into the dependence of one thing on another, they resort to temporary means of effecting an object, which may for a moment succeed, but ends in making bad worse. Were our legislators well informed of things, and their relations to each other; if they knew man, and the relation in which he stands to external things; if they felt the imperative demands of Conscientiousness, and rose above their petty selves; they would not tamper so much with the welfare of society, nor risk its peace and security. If well stored with the knowing and reflecting powers, six men would represent our community better than 600 ill-provided with aught but prejudice and party spirit. The true

philosophical understanding is made up of the faculties of Individuality and Eventuality, which make us acquainted with facts and phenomena; the faculty of Comparison, which informs us of their identity, analogy, or difference; and of Causality, which prompts us to penetrate into the causes of every thing. culty enables a person to find resources when ordinary means are not present. I have seen one labourer spend a whole day trying to remove a stone with the tool in his hand, which was not adapted for the purpose. I have seen another go for a proper tool and do the thing at once. A person with a tolerable share of Causality will contrive means to produce an effect that may be desired; while another, deficient in it, will be idle, or ask another to do that for him which he cannot do himself. A person with a fair share of Individuality and Language will write a good book of narrative, but if, without a good share of Causality, he attempt to unfold a chain of reasoning, he gets confused. Such a person, taking up a book written by one with a large endowment of causality, calls it dry and tiresome. Young people being prone to indulge in reading stories which gratify by their facts and occurrences, the faculties for which are usually most prominent in childhood and youth, the most important faculty we are now considering is left idle, and becomes feeble solely from want of exercise. Those faculties which are naturally strongest require less attention than such as are feeble, and it may be said, perhaps, no faculty requires so much careful nursing as Causality.

For more extended illustrations of the functions of the faculties, I must refer you to Combe's System of Phrenology; and for their connection with external things, to his work on the Constitution of Man. This last work has been so much appreciated by our neighbours in the South, that it has run through many editions, of many thousands of copies each, in a time almost incredibly short.

From the preceding enumeration of the human faculties, it will have been perceived, that nothing in man's nature has been created in vain; that every faculty is useful to him when it is regulated according to the Divine Will; and that they are productive of evil only when we bring it on ourselves, by disregarding

the proper cultivation of the Moral Sentiments, the exercise of which is intended to counteract every thing like excess in the animal nature of man, and to place him in the high station which the Creator intended him to occupy. There are yet many difficulties that meet us while investigating human nature; and we are apt hastily to draw conclusions which, when we reflect on the perfection of the Creator, we ought to suspend, as derogatory to his benevolence and justice, and lay to the account of our own ignorance. In acting thus, we perceive that we may, by industry, substitute knowledge for ignorance; and we are excited to search into God's works: " Seek and ye shall find; knock and it shall be opened unto you." Every thing done in contradiction to the Moral Sentiments brings its own punishment. We are apt to accuse fate, luck, and so forth; but whenever we trace effect to its cause, we find that we ourselves are to blame for promoting our propensities to act blindly. I repeat, read Mr Combe's work on the Constitution of Man, and you will there find ample illustration of what has now been stated. A cheap edition of that work has been published by the Messrs Chambers, to whom the world is indebted for a great amount of instruction and entertainment.

MUTUAL INFLUENCE OF FACULTIES.

I will now request your attention to the mutual influence which the different faculties have upon each other. They seldom act singly, but almost always in combination. You will easily conceive that, as men are not endowed with the faculties equally, that is, every one not having them in the same proportion, talent and character come thus to be infinitely varied. No two individuals are alike in every respect. If any of you will take the trouble to calculate the variations which may occur among thirty-five faculties, taking into account different states of activity, as well as power from difference in size, you will very soon perceive I do not use the term infinitely unadvisedly. To a teacher a knowledge of the faculties is indispensable; and that each faculty has its organ in the brain, and may be observed externally to a very considerable extent, is a valuable fact to assist in determining the power of an individual, and this is the province of phrenological

science. Since there is this evident variety in dispositions and talents, it is absurd in any teacher to imagine himself the model or standard being, and to expect that every pupil can do what he can do with equal facility. The proportions among the faculties in him being different from those in his pupils, require him to study the differences with care, and to act accordingly. this is seldom done. The mutual influence must be attended to. The courage of females is roused into unusual activity when their young are in danger, though at the same time they have but lit. tle of the feeling. The desire to possess, Acquisitiveness, excites caution, and these two excite Secretiveness. Firmness is aided by Hope and a sense of Justice. Wonder may be roused by Ideality, and, in short, the operations on each other appear also infinite. But it is evident that the faculties which are most powerful will chiefly influence the others that are less so; and hence, when these are known, and appear to act unfavourably, the weak powers must be assisted, and the strong ones repressed. It is always of the greatest consequence to bring the moral sentiments into a state of activity, as they ought to have the chief influence in directing all the others to their legitimate uses. When emulation is roused, the influence of one faculty over another is perceived in its unusual efforts to excel. If a prize is offered to Acquisitiveness, on certain conditions, the faculties adapted to fulfil the conditions are instantly set to work. When any particular study attracts an individual, he may ruin his health by over-working to gratify himself, as others often do from a desire to be distinguished. The brain being the seat of the faculties, and the centre of nervous energy, any faculty over-wrought produces disease, which often terminates in imbecility and death. To over-task children is ruinous; and it requires the utmost care in a teacher to modify the amount of work to suit the strength of the faculty under cultivation; for one may need more exercise than another, and one may be able to effect more than another. In reference to emulation, it may be observed, that, if two children are set to get some limes of poetry by heart, and have an equal endowment of Love of Approbation, but an unequal talent for language, both will exert the same spirit, but the one with the better faculty of Language will outstrip the other. In ordinary schools the boy with the best faculty would be rewarded, and the other punished, though both had made equal efforts-Suppose now that they both had Language equally powerful, but

that one had a great deal more Love of Approbation than the other, this one will excel the other because he has a stronger motive, and may become the better scholar of the two. In this case also the teacher may err in not stimulating the weaker Love of Approbation. But the two should never be set to compete with each other. Each one needs to be taught by himself. Seeing. then, that the faculties powerfully influence each other, it becomes of vast importance to give them a proper direction. If we reflect on what ought to constitute a happy society, we at once conclude that the cultivation of morality renders it so. Morality is not, however, negative-it is not the mere absence of crime or vice: but also the positive operation of doing good. Therefore, in Education, we have to direct all the faculties to their proper objects, and the superior moral sentiments are those which deserve the highest cultivation, because they are the directors of all the others. In past time the understanding has been exclusively cultivated as the chief part of the mind; but unless the understanding be under the guidance of moral sentiment, it will be, as it has been, employed only to assist inferior faculties to gratify themselves. If we look about us in the world, we shall see that this statement is too true. A person inclined to gratify Acquisitiveness by stealing, but with a puny understanding, will betray himself, or be easily detected; but with a better intellect, he will consider all circumstances of time, place, and means, so as to avoid detection if he can. Strong intellect with weak moral sentiment produces a dangerous character. Persons of this stamp prove frequently the scourges of nations. Why is crime punished, but because we prefer moral conduct to criminal? Why is sin denounced, but because good deeds are acceptable to the Creator? Yet while crimes are sedulously punished, and while sin is sedulously preached against, What is done to give strength and mastery to moral feeling? Nothing. It is neither promoted, nor are the abuses of the faculties repressed; the intellect is all in all in the existing system of education. The understanding has its best employment in the attainment of due effect from moral and religious feelings. How often is it forgotten from whence the command issued to love our neighbours as ourselves? In this command our Self-Esteem is appealed to, and we are desired to estimate the love we have for ourselves, and to deal out the same proportion of love to all. So highly did the Author of Christianity value this moral feeling of love, and obedience to the laws of morality issued by God, that He declared He esteemed those who did the will of his Father as his dearest relatives. Universal benevolence is the grand touchstone of Christianity, and yet is rare among Christians, who, as the world now is, are too often governed by selfishness alone. That this is the case can be attributed only to ignorance of our own nature, and the consequent errors of education. The moral and religious feelings should have supremacy, and rule over all the faculties, directing their applications to proper objects. They are, however, neglected, as if there was no such thing as moral feeling in nature. Though man has power over his inferior in creation, he is not entitled to abuse it. moral sentiments, if he would listen to them, forbid every abuse, and command the exercise of mercy. He kills for food, but is not permitted to torture. Far less has man authority to inflict evil on his fellow men. All agree in such opinions, but all do not agree as to the best means of obtaining such ends. Means and ends are often confounded. Some wait for divine influence: but, in my humble apprehension, it is improper to expect divine aid, until we have made a proper use of what God has already put within our reach. Let us first use that as we ought, and then we may in reason look for a divine blessing on our labours.

The vast importance to society of moral conduct is very generally admitted. To secure it, a well directed and well conducted education of the faculties appears to be the means best calculated for this purpose. Let us next consider, then, that the tendency of each faculty is to produce action; therefore the primitive functions must be studied before the proper education can be applied to direct that action. Emulation has been referred to, which arises out of the Love of Approbation. Hence, when this faculty is strong, it needs no encouragement, but rather repression. When moderate, a sound judgment will find opportunities of employing it with advantage. Nor should the fear of offending either this or Self-Esteem deter from accustoming children to have their faults pointed out to them, and the feelings which occasion them explained, and directing the exercise of faculties which are antagonist to those which are predominant. Any of the faculties may be directed to good or to evil. The correction of predominance must of necessity be gradual, and patience is the first virtue in a teacher. The exercise of mere authority, a word of command, cannot change a natural tendency. The same treatment will not suit every child; and education will never produce good conduct, which is preferable to learning, while teachers continue to believe the mind of every child a sheet of paper, on which whatever they will may be impressed. Hence it is my opinion that no expense should be spared by the public to procure the services of teachers fully qualified to manage every case. Such are rare, and proportionally precious.

To return to the direction of the faculties. Love of Approbation demands distinction. This may be procured by proper and improper means; and unless the faculty be placed under the direction of the moral sentiments, it may call the lower propensities into action, and seek notoriety in debauchery, and mischief, and rlot; while, if under right direction, it may demand gratification from the constructive and other faculties applied to the arts, or from the knowing and reflecting faculties in the walks of science. The consequences of froud may be contrasted with those of honesty, and Acquisitiveness be prevented from gratification from dishonesty, by guiding it to derive higher pleasure from the practice of honourable industry. Nor is it necessary only to guide the faculties. Children may be taught their own nature as far as they may be able to comprehend it; may be told that a faculty predominates, which, for their future happiness, they must check; and, for the same purpose, that they must exercise one that is weak. Motives for action must exist, and the best and most rational motives should be excited, and this too in attention to bodily as well as to mental health.

The amount of direction and instruction which may be given by well informed teachers and parents on every occasion, and to very young children, is immense. The nature of food, whence it is derived, how it is cooked,—a thousand things may be told about what might be thought trifles;—and moral knowledge, as well as physical, may be conveyed in the same way. Neither parents nor teachers should ever repress curiosity, by telling them that they are not old enough to know, or that it is not proper they should know. This is a disgraceful way to hide ignorance. It is better at once to acknowledge ignorance, and to promise inquiry. Bread furnishes discourse on agriculture, chemistry, and mechanics; a potato, on vegetable physiology; a knife, on mineralogy, mining, metallurgy, and various arts; a bit of pa-

per will furnish materials for a long lecture; even a particle of dust furnishes a theme for much instruction and amusement. But those who are ill taught cannot teach. Although children may not be able to follow out the processes of reasoning and calculation, and of observation, that lead to discovery, they will be found capable of enjoying the detail of the facts of science, and not always unable to apply them.

It is a lamentable mistake, but a very common one, to suppose it enough to tell a child to be this or that,—to be merciful, obedient, and so forth, as if this could creats feelings. If a feeling of benevolence do not exist, no preaching about charity or mercy can excite it. The feelings must be excited to action, and not vainly bidden to exist. Another thing equally unfortunate is, that teachers are not aware that the same faculties may be exercised in childhood, on objects very different from those to which they are likely to be afterwards applied. A child may be ambitious to possess a toy, when a man may strive for the badge of an order of knighthood, to possess an estate, or may feel unhappy because he cannot obtain what another has, and thus envy and jealousy may result, and all this from the same source.

We often see nurses and mothers torment children by resisting their demands, and at last yielding to them. Nothing can be more injurious. If any faculty predominates,—if firmness produce obstinacy and courage resistance, let them be repressed by steady conduct, and not be encouraged by the hope that they will gain their ends. Too often children are required to do what is unjust, and that is not the way to teach them justice. Timid children should be cautiously accustomed to face danger. If they are too bold, means may be found to let the child experience evil consequences, and be taught the propriety of keeping combative impulse down. When children are too much applauded, they become vain and proud, and are thus tempted to do wrong, and become troublesome. The feeling of private interest is in general too strong, and it is actually taught that the chief purpose of life is to accumulate riches; and that the object of such accumulation is, that all desires may be gratified, money being supposed capable of procuring all we need. Those who acquire riches are very apt to give wealth undue importance; and, indeed, the world is too apt to defer to it in all things. Acquisitiveness thus derives nutriment and becomes excessive, and its gratification becomes so imperious that other faculties are called upon to serve it. There is no injustice in any pursuit while another is not injured. But when selfishness prevents Benevolence from bestowing what is not needed by self, an injury is inflicted on society. When Benevolence acts powerfully, and overcomes selfishness, benefits are conferred. Yet, when we look around us, we perceive that the action of the faculties singly is too much cherished, and injury to others in the attainment of gratification overlooked. Those who have most talents will govern those who have least; and as long as talent is employed for selfish purposes, and not for the general advantage of society, and is not under controul of the moral sentiments, tyranny will rise, be pulled down, and another tyranny be established; and so on will the world go, being turned and overturned. The direction given to all the faculties ought to be in obedience to the moral sentiments.

RELIGIOUS FEELING.

I may be expected to say something of the direction of the sentiments which combine to give the religious feeling. Very little will suffice. Modes of worship are various in different countries. Some consider the sacrifice of human life, some of animals, as acceptable to the Deity. Some assume painful postures, others dance; some fast, some flog or cut their skin, and various absurd things are done to conciliate the favour of the Great Spirit. Some, again, fearing an evil spirit more than loving a good one, perform similar actions for propitiation. So credulous are mankind, that, let any one trump up a story, however ridiculous it may appear to common sense, and pronounce it with an air of authority, it will be believed. This is not peculiar to barbarians or savages, for even Christians differ among themselves, and sects are formed by boldness of preaching, or rank imposture. It is scarcely credible that Joanna Southcote had followers who believed every thing she said, and did what she commanded. Credulity is the offspring of Hope, and ought to be checked,imposture succeeds with Marvellousness, which should be put on its guard,-truth should be unfolded to the Intellect, and to Conscientiousness; and when they are satisfied, there is little risk from credulity or imposture. There exists great diversity of opinion in regard to the interpretations to be given to the contents of the Bible, which are the foundations of the various doctrines that divide Christians. There seems no prospect of a perfect union; and this will be more and more distant, while peculiar doctrines are infused into the minds of the young, before they are capable of judging for themselves, or understanding what they are commanded to believe. In this matter each sect must be left to itself, until knowledge shall be increased, or it shall please God to interpose and point out truth from error.

DIRECTION OF FACULTIES.

Besides giving the faculties such a direction as to secure rectitude of general conduct, due consideration must be given to the station which it is likely will be occupied in after life, and how acquired knowledge will be applied. In every station moral conduct is necessary, and hence the assiduous cultivation and regulation of the faculties can never be unnecessary. In reference to their own bodily health and comfort, as well as to their interests as members of society, good conduct is required from every one: and as it is also indispensable in order to shew obedience to the commands of God, it is the end of their existence. Improvement in moral conduct is desired by all; and, therefore, if the means hitherto employed to effect this, however they may be sanctioned by long use, be found inefficient, they should be set aside, and new means employed, such as may be justified by increasing knowledge of our own nature. Force, punishment, temptation. will neither produce good feelings nor eradicate bad ones; they will not create intellect, nor prevent it being applied. We must know what already exists, and apply what reason, directed by knowledge, deems proper. There are faculties adapted to every employment of life; and while some may be most sedulously cultivated that are to be used in a particular profession, not one should be neglected. Education for boys has too long consisted of Latin and Greek; for girls, music, drawing, and French, and little or nothing else. But were they instructed also in natural history in all its various branches,-were chemical experiments exhibited to them, and mechanical operations, we should confer great pleasure, and give instruction at the same time. Put young people in the way of knowledge, and they will soon display partiality for something, and point out in this way the kind of employment in which they are most likely to excel, so as to make themselves independent. Even in regard to accomplishments, we try to force them in a manner the most preposterous, and at vast expenditure of money and of time. How women complain of the time wasted on music? And it is also a great mistake to suppose, that fondness for music is all that is necessary to enable a person to perform on instruments. Even the wishes of an individual will not enable him to succeed; and this I can state from my own case. We do not find many ladies who, after leaving school, practise music for the pleasure it affords to themselves. To excel in any thing, there must be a desire, and the necessary combination of talent to execute. If let alone, and placed in the way of music or drawing, children soon exhibit their desires. And this may be discovered by putting various instruments in their way, and noticing their choice. I think Wilderspin limits playthings too much; and am of opinion that the greater the variety of playthings the better, provided they be what leads to utility.

Accomplishments are most desirable when not attained by the sacrifice of what is more important, but unless there be a natural desire for them they should be let alone; for where no desire exists....no love for the things themselves...to excel so as to make them agreeable is impossible. Those who love and understand music do not meet one in twenty performers that can please them. If mamas imagine that husbands are to be caught for their daughters by means of accomplishments in an inferior degree, they are mistaken. Nor will any wise man marry for the sake of accomplishments alone. While they are most agreeable and desirable in his eyes, he demands more than one faculty in a state of cultivation. All must have leisure time to recruit after exertion, whether bodily or mental, and that time is most delightfully filled up by music, drawing, or works of art. But, as already observed, let no time or money be expended on these, unless there be that which enjoys them for their own sake, as well as the desire to please others. To desire to please is a powerful and valuable motive, and should be carefully encouraged. When any thing is done not quite to our minds, it is better to say, " I am much pleased with what you have done, I will now show you how it may be better done;" than to scold or punish. At a writing school, the pupils sometimes get a rap over the hand for not shaping their letters properly, and thus the poor little fingers are disabled from doing better. The mode of teaching to write by forcing little children to make letters too large even for a grown hand, and which are never afterwards used, is an absurdity that reigns at this day, to the disgrace of common sense. Children ought at once to learn the smallest hand in use. But the cupidity of writing-masters will exclaim against this, because it would amazingly abridge the time occupied in learning, and save money to the parents instead of filling their pockets. A child that has a talent for drawing will shew it in writing, which is in fact a branch of drawing, and depends on the faculties of Form and Constructiveness. It would be of great importance could a space defended from the weather be provided for children at infant schools, and where large black boards, and a supply of bits of chalk, could be placed for their use, with which they might write or draw as they pleased. As things are, such boards might be used in fair weather in the play-ground.

The faculty of Order should be carefully cultivated and directed. Whatever is given to children ought to be accompanied by instructions how they are to take care of it, and to return it when they have no further use for it, and not to break or destroy. Young females cannot be too early accustomed to keep a house in order, and family accounts distinct. This is the natural province of females, and such as excel in these matters are universally applauded and highly esteemed. In general conduct. Order is of great value, and practice is necessary for its improvement. The regulation of time, for bestowing it on different occupations, is of the utmost consequence. A boy should be placed in various situations, and be left to exercise his own powers, and to manage in his own way; and, being observed well, he may be instructed when he errs, and commended when he does right. Perhaps this may not suit girls so well; yet it is best to let them learn as much as possible from reality, rather than wholly from the experience of others.

I am not quite certain of it, but am of opinion, that the faculty of Order contributes pretty largely, as well as Benevolence, to what is called refinement of manners. All coarseness of behaviour is disagreeable, as well as awkward motions, and every thing odd. All this may be, if not eradicated, greatly amended

or prevented in young persons, by pointing out their awkwardness, and shewing them what to imitate. Nothing renders society so agreeable as suavity and easy manner. No doubt this to many comes of itself naturally, but to very many it does not,-and, therefore, it should form part of early education to form manner. We often see among persons who move in the most refined society those who allow some unmannerly action or expression to escape; and Destructiveness, under the cover even of smiles, too often employs itself to detract from our neighbours; and Secretiveness and Love of Approbation are too often employed, in what is called the best circles, to invent and propagate falsehood. Mischievous and unchristian as the propagation of lies may be, when done with the appearance of good manners, still proper behaviour is not to be neglected though thus abused. As Shakspeare says, a man may smile and smile and be a villain; but a smiling face has charms which are not to be banished on that account from the faces of the good, though they may serve as masques for villany.

In directing the reflecting faculties, we have no scarcity of subjects on which they may be exercised. It is absurd to say that children are incapable of reasoning. Doubtless they cannot reason with so much power as a grown-up person, but this is very different from their not being able to reason at all. I formerly gave you an example of how Comparison and Causality might be exercised in arithmetical questions. But it may be done in very trifles. I have no doubt that some children at an infant school. could be made to comprehend the laws of the planetary motions, by some short lectures and experiments with their swing, and the laws of motion while playing with marbles. Cause and effect are found every where, and, in children, Individuality and Eventuality are seldom idle. There is something else, however, required besides the facts for inductive reasoning, and the capacities of the children. A knowledge of the subject, of the constitution of human nature, and great tact, must be possessed by the teacher. As I said before, no situation requires so much in a teacher as an infant school. He must have the knowledge of a score of professors, and talents of the highest order, and they should be suitably remunerated, for their employment is the most useful, I will say the most noble, of all professions.

. There is nothing so hurtful as to tax Benevolence. This

feeling sets us agoing to institute schools and other charities, and most erroneously to rely on the voluntary support of the public. The truly benevolent form but a small proportion of the community, and very often they are not found among those who have, or ought to have, something to spare for the gratification of this feeling. Those who have less Benevolence leave the whole burden on those who have most; and thus the best institutions set agoing with enthusiasm are left to pine away. This is one among many reasons why the State should take up the cause of Educa. tion, on the most extensive and most liberal scale. Indeed it is time for us to look about; for Great Britain, looked up to by the rest of the world, is lagging far behind her neighbours in the matter of education. Gross injustice is often committed on the benevolent, who are often prevented from accomplishing their desires. and obliged sometimes to withdraw their bounty, and to refuse demands, by causes of a private nature, over which they have no controul; and, among others, by the duty of providing for their own. Yet I have known such persons cruelly defamed, while others, who love to sound the trumpet, ostentatiously give their alms, and delight in seeing their names and deeds in newspapers and subscription lists. Nay, I have known instances in which the Christian injunction not to let the left hand know what the right doeth in the giving of alms was obeyed, but defeated by those who enforced publicly that injunction sending paragraphs to the newspapers. The benevolent alone should not be taxed for what is the duty and the interest of all.

To return. It is chiefly by exercising the reflective powers that new ideas are acquired. But instead of furnishing a succession of new ideas to young people, their time is wasted in learning to express the same ideas by different signs. Horse is as good a word as equus or hippos. Ass is shorter than asinus, and as expressive as onos. It is of little use to a child, when taking his food, to know that a spoon was once called kochliarion, or porridge jusculum. To learn such things does not cultivate the understanding, or impart knowledge. Modern languages are extremely useful, but the acquirement of dead ones should be regarded as mere accomplishment. It has been said the dead languages are necessary for learned professions. They are so, only because in such professions there is monopoly. Physicians seldem think it necessary now to preserve mystery with patients in

regard to the medicines they prescribe; and examinations for degrees are not now carried on in Latin, at least in Edinburgh. dead languages are to be taught in early life, (which they ought not to be), they ought to be secondary to the acquirement of general knowledge. Instruction in art and science, properly conveved, stimulates reflection, and excites desire to make farther discoveries. Children should be so conducted as that they may make discoveries, or seem to make them, themselves; and this is attained by conversational and practical education. How many human beings live and die, and know nothing of the air they breathe, the light that enables them to see, or the heat that gives them warmth? How many pass their lives knowing nothing of the food they eat or drink, or of that wherewith they are clothed? Ignorance of common things pervades all classes, and chiefly the It is owing to the ideas of legislators being confined by want of general knowledge, that improvement in the condition of States is retarded, and the liberty of the people abridged. I could scarcely hesitate to undertake to match perhaps more than half of our Representatives in Parliament, in their amount of positively useful knowledge, by an equal number of pupils selected from a well conducted infant school. I am not ashamed to say that, after visits to infant schools, I have been obliged on reaching home to apply to books; and many good people have retired from an examination of babes, full of regret that, in their time, no such schools existed.

Allow me to repeat, that each faculty has an inclination to act in its own sphere; but when it so acts, it acts blindly. Each faculty assists and governs another, and the directors that are intended by the Creator to keep all in a right direction are the moral and reflective faculties. Each or all may be abused, but education is intended to prevent this. Maxims, and rules, and precepts, are inadequate without practice. Each faculty must be exercised in its legitimate sphere of action. Bad example ought to be shunned. Yet it is too true that, while children have sobriety preached, they see the reverse at home, all classes aiming at luxury and display. Lessons are read in schools in which avarice and vanity are denounced; yet, when they look about them, they see all busy in making the most of others, and gratifying vanity and selfishness. Vanity, vanity, all is vanity and vexation of spirit.

MOTIVES OF ACTION.

It is of importance in conducting education, to consider from what source the motives for action proceed, for there can be no action without a motive. If certain faculties exist in man, as I have endeavoured to set before you, then it is obvious that each faculty has its own gratification as a motive for exciting action. This being the case, it is the more necessary that there should be certain faculties superior to others, in order to proper education. Each faculty is good in itself, and its abuse only is evil. liability to abuse renders education and direction necessary for the sake of society. Since the manifestations of the faculties are influenced by organization, this is a most important fact, and puts much in our power for regulating society, which we did not before possess. It enables us to see the cause of improper and hurt. ful manifestations, and to guard against them. The great aim in regulating motives, is to produce only such actions as are justified by the superior faculties, when these operate in full vigour. The motive which excites Acquisitiveness should be regulated by Benevolence.—the proper aim being, not only to please ourselves. but to assist others by a share of what we acquire. When we kill for food, there are two faculties at work, one of which I did not before mention,-the desire for food, and the propensity to kill. Benevolence again interferes, and bids us kill suddenly, and not to inflict unnecessary pain. In the same way, Conscientiousness interferes to prevent any other faculty gratifying itself by doing injustice to others. When the superior sentiments act from their own motives, they are highly gratified; and not less so when they are called upon to enforce the moral law upon the lower faculties. The law of Nature is the law or will of God, and none but He can alter it. Christ himself declared he came to fulfil it, not to destroy it; and by his personal example exhibited how it ought to be fulfilled by others. The entire constitution of nature seems to have been adapted to man, and he has been also adapted to it. It is not for us to inquire why is any thing as it is, but to discover what is, and to act accordingly. Therefore, if we discover by inductive reasoning that man possesses certain faculties, and that their manifestations depend on organization, we must hold this to be a part of the great law of Nature, and employ the discovery for the amelioration of our species. Some, indeed, maintain that man is by nature incapable of improvement, and yet, with great inconsistency, call upon him to mend his ways, and punish him if he does not. We are told in Scripture there are just persons that need no repentance, and that those exist who are a law unto themselves. This, then, is sufficient authority for believing that man is capable of being improved, so as to become more just, and to need less the penalties of the law. man be not capable of improvement, for what purpose are so many efforts made in his behalf? When we know the sources or motives from which actions proceed, a very great step to improvement is made. The motives which proceed from the higher faculties are the religious, in respect to our relation to God; and moral, as respects our relations to our fellow-men. God having created man, and established the laws of Nature in reference to him, men differ in opinion embraced in the question-Did God make man to serve any purpose of his own, to gratify himself, or for man's own sake, that he might confer happiness on his creatures? It is obvious that God cannot stand in need of any thing that man can bestow, in order to augment his own happiness. is equally obvious that nothing can be received more willingly by the Creator than obedience to the laws which he has established. Man feels that happiness is his being's end and aim, the end and aim of his nature. To understand that nature, must therefore greatly contribute to happiness, and understanding it leads directly to the obedience of the laws of Nature, and this is agreeable to the Creator. Ignorance and perversity conceal his own nature from man, and prevent his listening to those who have been so fortunate as to discover it, and are willing to afford him this important means of attaining the object that is the chief one of his life_happiness here and hereafter. Nay, he not only will not listen, but he reviles his greatest benefactors.

Young people may soon be taught many of the laws of nature, and satisfied that they cannot be changed, and that, if they infringe them, they will suffer natural punishment. It is a law of nature that fire burns; yet we could not do without it. It makes water to boil, and thus puts gigantic power into the hands of man; but such is the nature of heat, that, if we touch boiling water, we are scalded. If, therefore, we disobey a law of nature by thrusting a hand into burning fuel or into boiling water, we are pun-

Cautiousness is given to enable us to avoid accidental infringement of the laws, and the Knowing Faculties to make us acquainted with them. When once we know these, it is invariably and necessarily our own fault if we suffer the penalty of infringement. But while it has pleased the Creator that we shall thus necessarily suffer for every infringement of natural law, which is His own law, he has at the same time rendered these very laws subservient to our happiness, and therefore obedience is as sure to bring us satisfaction as disobedience punishment. Children may be taught this, and ought to be, because it will not only save them pain in acquiring knowledge for themselves, and excite caution along with curiosity, but lead to the contemplation and veneration of that inconceivable Power and Goodness, that has ordered all things for our good, under the easy condition of obedience. The proper use of the faculties, the controul of motives by the superior powers, is obedience; but it is easier to shew men the law, than to induce them to obey. will be difficult to bring men to comprehend why the government of the faculties should tend to the general good of the human race, and to induce them to prefer that good to their individual gratification in listening to the solicitations of inferior feelings, and neglecting the warnings and advice of the superior senti-Whichever of these last may be most powerful in any individual whom we wish to call back from disobedience, and to look to the injury inflicted by his conduct on society, let them be appealed to. If Conscientiousness and Benevolence prevail, stir up these to do the good work; if Hope and Veneration prevail, let their motives be made use of; and if both the natural and reyealed law can be used, it will go hard indeed if obedience cannot be secured. Such, however, is the present unfavourable state of the human race, that we can live only to see the beginning of improvement. It is fitting that every thing should be done to reclaim the old, but the finest fruit will be obtained by cultivating the plant when young. If the superior motives will not reclaim, then let us have recourse to inferior ones, such as Love of Approbation, Acquisitiveness, reward and punishment, &c. let these be the last resources. It should be kept in mind, that the same action may arise from different motives. child may obey from fear, another from a desire of praise, a third from a prospect of gain, a fourth from a sense of duty.

A teacher who knows human nature as taught by Phrenology, will be able to ascertain motives with great precision, and to correct them so as to satisfy children of the value of the highest motives. Nor should it be forgotten, that children do many things from mere imitation; and there are occasions when this faculty may be very profitable in education. It is this, however, that renders good example so necessary, and bad example so disastrous. Children's minds, when not trained, are easily led, unless their faculties be somewhat precocious, or determinate. They consider whatever others do, or extol, to be right; and they act by imitation, whether what they see or hear be good or bad. It is most dangerous to exhibit conduct to children that is contrary to the precents inculcated on them. If they are expected to be just, let them be treated with justice, and see others so treated. Nothing unjust should ever be demanded of a child; and they should be made to submit to every just demand, and no resistance on their part yielded to. Unjust demands should never be persisted in. Children are able to perceive moral distinctions before they can reason. There is one thing that may here be mentioned, which is a very common error, and one which, while intended for one thing, produces the reverse. Giving holidays by way of reward, clearly indicates that being in school is a punishment. To keep holidays makes children like them, because, when they come round, they are allowed to be idle. This is indeed the same kind of error, but not so gross a one, as making children learn portions of the Bible by way of punishment. Both tend to make them dislike that to which we wish to attach them-Yet no error is so common, and betrays a sad want of reflection in teachers and managers of schools, while it shews, when once we are aware of it, how much ignorance of our own nature vet obtains in the world. The same folly is extended to religion; and in some churches the saying of prayers a certain number of times is enjoined as penance. By what I have said, it must not be understood that it is believed that human nature is yet in so improved a state, that, to produce good conduct, appeals even to the lowest motives are not necessary. Every one differs from another, and therefore different motives must be excited. on every occasion let the highest motives be tried first, because many will be found to submit to them, while others will need to be stimulated by disagreeable things, such as a cautious excite-

ment of keen hunger, or privations of various kinds, or a moderate and not a cruel use of the rod applied to the motive of fear. In order thoroughly to comprehend the principle of motives of action, it is incumbent on teachers to study the nature of man. and parents will be all the better of applying themselves to it. We have yet to consider that individuals of the human race differ from each other in natural endowment, and this in infinitely various proportions. This fact establishes the principle, as yet almost unknown, that education cannot be carried on by means of one motive. The aim of it is one, but the means of attaining it must necessarily vary with the different constitutions of those to be taught. Every one is not equally capable of improvement, and those that are least so require the greatest attention and care. Some are so greatly endowed that they excel at once in whatever they turn their attention to. Others well endowed, but not so much, cannot reach excellence in more than a few things, and some in only one or two; and those there be who excel in nothing, but have only middling powers; and so on we descend from the most brilliant genius to the idiot. Some characters are naturally moral, are a law unto themselves, and act from a sense of duty. Others, stamped by a religious character, act from faith. When persons of different natural character have certain faculties so active as to produce a motive, Love of Approbation, for example, they will strive to make others like themselves, and to bring them over to their own way of thinking. This creates much disturbance in the world, and in religious matters gives rise to sects and sectarian spirit, and unchristian wrangling about interpretations and forms. Education must be adapted to human nature, otherwise it will never improve it. No single motive, as already observed, can succeed. All men cannot be made philosophers, though some may think it possible. No one who understands human nature can expect that the motives which regulate his own conduct will regulate that of all others. Yet this is imagined by teachers of every kind; and preachers sometimes wonder at their want of success, while it is entirely owing to their making their own feelings, as proportioned in themselves, the standard for all others. Hence, while a sermon is delivered, we see a few listening, others fidgetting, some taking snuff, and probably the majority seeking relief to their weary brains in devotion to Morpheus. He before whom the nature of man was

open, took a different course. He applied to every motive, excited every moral feeling, and did not confine himself to one or two. Let those who doubt this read the history of Jesus Christ. Preachers confine themselves to the inferior sentiments. to Acquisitiveness, which desires reward, - to Cautiousness, which dreads punishment. Time and knowledge will rectify this, and bring about the perception of the principle of motives; and it should be remembered, the teacher of humility must not be proud, nor he who inveighs against vanity be vain. He who says we should keep ourselves unspotted from the world, should not be a slave to the world's opinion, nor rest his happiness on its applause. As such contrarieties exist, the cause of their appearance is to be found in the ignorance that brings up young men to professions for which their predominant faculties unfit them. However powerful his understanding may be, he that is too largely endowed with Combativeness, Destructiveness, Acquisitiveness, and Self-Esteem, should not be brought up for the shurch. Those of weak understanding are equally unfit. No men who is known to be capable of taking a bribe is made a judge. nor should my one with too much Cautiousness be made a general; nor should any one who is fond of power, or too strongly attached to a party, be sent to the national council to represent free people. But while feelings are to be exercised that are adapted to a particular profession, the higher sentiments must predeminate to render an individual useful and respected in the situation to which he may be called. A clergyman must have Veneration, and a soldier Combativeness; but neither can be respected nor useful, if he be deficient in Benevolence and Justice. Without these intellect is of no avail. A mechanic may have less intellect, and a greater share of moral feeling, than a bishop or a philosopher: but he is not a worse workman or member of society on that account, nor is the bishop or philosopher more respected for his deficiency.

While the supremacy of the moral and religious feelings is admitted, it by no means follows that the intellectual faculties are to be neglected. They have been given to us expressly to enable us to find out God'in his works, and make us wise. Some neglect, and even despise, intellectual acquirements. Such persons must be poorly endowed with intellectual power, or their feelings must be in a morbid state. Such are the persons who become hermits,

and put away from them all temporal concerns. Many unhappy creatures, of all religions, seek the approbation of God by torturing themselves. Some are of opinion, from a morbid state of feeling and small endowment of intellect, that all knowledge of every kind is comprehended in the Bible. Schools are known where, if, in the course of reading, any thing is mid of the natural history of the bear, the scholars are stopped, and made to turn up and read, from the book of Kings, that two she bears came out of a wood to devour the children who mocked Elisha. If a fox hap. pens to be mentioned, or the nests of birds, they are told that every thing is in the Bible necessary to be known, and they are made to read, as a proof of this, that foxes have holes and the birds of the air have nests; and every applicable passage is thus sought out, as if, by doing so, the credit of the Bible could be raised by its being considered as a treatise on natural history, instead of being looked upon in a more rational light.

The intellect is necessary to regulate the feelings. Without it, Benevolence would exercise itself on unworthy objects, and Veneration on stocks and stones. Unreasonable hopes are certain of disappointment; and unenlightened justice is seldom seasoned by mercy. No judgment can be formed without reflection, else it is probable it will be erroneous. The intellect, in short, is essential to conduct.

In cultivating the intellect, every thing that is taught should be useful. Some persons are so weak as to imagine that, if a man be a good classical scholar, he is every thing. Being a scholar depends almost wholly on one faculty. Reflection is not necessary; all that is needed is a talent for artificial signs, so perfect, as to have a good memory, which gets ready-made rules by heart. With respect to the spirit and structure of language, it may be understood without dead languages. Classical scholars will give you the names of things in Greek and Latin, but may not be able to give you any information in regard to their properties and qualities. A boy learning Latin once saked his father an unlucky question, Who made the Latin Language, and for what did be make it? Another boy, with a feeble faculty of language, wished he had not been born, since he had to learn Latin. It has been remarked, that many sprightly boys, of excellent capacities for useful knowledge, have been so disgusted with the dead languages, as to retreat from the drudgery of schools to low company, and

have become bad members of society. I have seen this myself at a great English school; and, not long since, I was in the company of some young men who had been at Eton and Westminster, whose conversation turned, with much apparent delight, wholly on the low blackguardism in which they had been engaged. At such schools the existence of any faculty in the human constitution, save that of learning Greek and Latin, seems to be wholly unknown, or, if known, to be wholly disregarded, as unworthy of cultivation. Yet from such seminaries do our legislators and aristocracy issue. To consider mere scholarship as a test of genius is ridiculous. It can only shew that a great scholar is endowed greatly with one faculty, which might have been more profitably employed on living languages. Whatever difference, then, may be in natural endowment, the efforts made to educate should be the same, but most assiduous where there is a deficiency. however, is not attended to in schools. The best endowed are the favourites, and receive indulgences and rewards which would be more properly bestowed on those who, though with less success, exert themselves to the utmost of their power. This renders classification necessary, and those with weak powers should not be exercised along with those who are more clever. It is always more agreeable to children to keep pace with each other: and giving precedence to the clever only puffs them up and renders them proud, while it dispirits and renders unhappy those to whom attention should be chiefly directed. I do not say that it is possible to render, by education, a weak endowment equal to a strong one; it is only affirmed that it may be greatly improved, beyond what it would turn out were education not employed. Besides, as good conduct is, and ought to be always; the chief aim, not only may weak powers be improved in reference to this object, but such as are too strong modified and directed.

General should precede professional education; and when the time comes for the latter, classification is again necessary. For it will be found that the tendencies of some are in one direction, and those of others in different ones. And after the division according to the object to be taught in reference to professions, young people must again be classed according to their ability. In general education it is necessary to announce many facts without stopping to detail the processes by which they were discovered; at the same time, when this can be done shortly, and in a man,

ner suited to the capacities of the pupils, it should be done. And on all occasions it would be proper, and very encouraging to the pupils, and a means of exciting their faculties, to ask them if they would like to know how such and such a thing was found out; and the detail will rouse their own powers of observation, and greatly assist in displaying the different degrees of mental activity. For mental activity depends not more on the size of the brain than on its quality and state of health; and that health is always affected by the general state of the body. That general state is designated by physiologists Temperament.

TEMPERAMENTS.

It is not necessary, in such a work as this, to convey a full notion of what is meant by Temperament. Yet a brief account is proper, because every day's experience proves the correctness of the theory, and it is of very great importance in training the young.

The entire system of the hody is made up of the digestive organs; of those which prepare and circulate the blood; and of those which contribute to keep mind and body in action, and which have the name Nervous System. There are some who have the digestive powers proportionally more fully developed than the sanguineous or nervous systems; some who have the sanguineous greatest; and some in whom the nervous system predominates. The digestive process goes on in the abdominal viscera; the sanguineous in the thorax or chest; and the nervous in the brain.

When we observe a person with a large abdomen, and, proportionally, a small head and small chest, this person is said to have the Lymphatic Temperament. All the parts of the body are plump and rounded; the face pale and full; and the expression of the eye heavy. There is a slowness in every movement, and an aversion to exercise and labour. The constitution is heavy and dull. A child with such a constitution cannot exert itself, even when willing, to nearly the same extent as others with a more favourable one. Yet I have seen such a one knocked about and flogged at school, and the little effect of such treatment rousing the ignorant master into fury. Common sense allowed its fair sway at once condemns such savage treatment, and dictates what

it ought to be. Eucouragement to exertion is the obvious means of improvement; and though experience has not yet proved it, analogy leads us to hope that, by proper attention, such a temperament, taken early, may be very much improved.

When the chest is large, and the brain and abdomen small in proportion, we have the Sanguine Temperament. The complexion is florid, and the hair usually fair. In this there is much activity of body; and the mind partakes of it even to restlesaness. The elaboration of the blood, in capacious lungs, is speedy and perfect, and its circulation is rapid and abundant; and thus the system is greatly excited. Here we need repression more than encouragement. There is both strength and activity, but these are chiefly devoted to muscular efforts, and less to mental effort; and, at the same time, digestion will not be so rapidly performed.

When the head is large, indicating a large brain, and the chest and abdomen small, there will be little disposition to exert the limbs, and little muscular strength, and less perfect digestion. But there will be much power of mind, as well as activity; the nervous energy being proportional to the mass of nervous matter, and this energy becoming more conspicuous as the size of the chest and abdomen are less. This state of things constitutes the Nervous Temperament.

We see these temperaments to a certain extent in the lower creation. Among our domestic animals, we find the lymphatic temperament in those disposed to fatten, for example, in the New Leicester sheep; and if farmers were acquainted with this matter, they would select animals with large abdomens and small chests and heads. The sanguine temperament we find in dogs, and especially in the greyhound, the form of which has been strikingly adapted by the Creator for extraordinary muscular effort; and accordingly, the chest is very large, and the abdomen very small. Beasts and birds of prey are distinguished by a combination of the sanguine and nervous temperaments. Indeed it is somewhat rare to see any one of them in great predominance, and they are commonly combined in various proportions. In some individuals they are so combined, that sometimes one, sometimes another, predominates in its influence. We are sometimes surprised to see a large heavy-looking person active and making great exertions, and dancing lightly. Such persons will be found to have capacious chests and large heads, as well as a large abdomen and general plumpness. When the nervous and sanguineous systems are both energetic, and the abdominal moderate, there is apt to be too much activity, and much risk to general health. The waste arising from over-exertion, needs a supply which feeble digestion cannot afford. The utmost care is therefore necessary to prevent undue waste from over-exertion. Parents fall into sad mistakes in reference to this. A precocious child is exhibited and pushed forward, and its nervous energy destroyed; bad health follows, and it is carried to an early grave. Children with large and active brains ought to be kept back until their nervous system has acquired its full growth and tone. Its precocious activity should be expended on employments and amusements that require little effort; and there is no risk of its being left behind others, for as soon as the brain has acquired strength, its power and activity will soon place it foremost in the race.

A knowledge of the temperaments, then, appears of importance to teachers, since they are found to modify mental as well as bodily activity; which last is derived from the former. This should be attended to in the choice of a profession, and no young person should be encouraged to follow a profession for which his temperament may not suit him. Improper education may repress faculties that, if turned towards objects suited to them, might have enabled the possessor to excel. Some are made soldiers who would have graced a pulpit, and others there are, who might have beaten any other drum better than the drum-ecclesiastic. It is very natural for boys in a large class at school, while they are not saying lessons, to follow their natural bias, by drawing on the blank leaves of their books, or doing any thing which they can conceal from the master; and if they are discovered they are punished for doing something rather than sit idle. Instead of resorting to punishment, the teacher should note down the fact, and either communicate with the parents, or employ the natural bias in a rational manner. At present men are appointed to stations of trust and importance without the slightest attention being paid to their natural endowments and character, and the duties intrusted to them are but too often ill performed, or dishonestly undertaken. The Society of the Jesuits rose to possess extraordinary power and influence, chiefly from attending to the natural talents of their pupils. They carefully noted the natural bias, and chose for admission into the order only those with acute understanding, and employed them in matters which their natural disposition enabled them to manage with dexterity. This society perceived what Phrenology afterwards demonstrated, by discovering the cause of varied mental endowment. The purposes to which the Jesuits applied their knowledge of human nature are not to be commended, but their sagacity enabled them to wield a weapon of power unknown to the rest of the world. The society was destroyed and dispersed, but the facts by means of which it had flourished remain the same; and though it be in the power of men to avail themselves of them for purposes tending to premote human happiness, they are too much inclined to shut their eyes against truth.

In professional education a vast deal of time is wasted; and the cupidity of monopolizing professors forces the student to expend his money and his time, and to weary his brain for that which can be of no use to him, unless he happens to have a natural partiality to it. Every kind of knowledge is useful, but where a profession is to be followed, the acquirement of any branch not immediately connected with it ought not to be compulsory. Our clergy are forced to attend certain classes in the universities, and a vast majority do no more than attend. The study of man. whom he is to guide, forms no part of his duty, while it should be a principal part of it. All that is required being, that the student shall answer a few questions in the dead languages, expound a few texts in a way he knows will please, though contrary perhaps to his own sentiments, and he is turned out to seek patrons. When we are among professional men, we find them of every variety of mental constitution; whereas all should have that portion of mind that is necessary for their business in the greatest vigour, and the moral sentiments in full command. The profession of the law exercises powers in a direction too often in opposition to morality and religion. In conducting a lawsuit, deception, fraud, and even direct falsehood are too much employed to deceive judges and juries, and justice can seldom be said to triumph. We meet with similar anomalies in other professions, whether learned or mechanical.

I have extended this summary perhaps too much, although the subject is far from being exhausted. From my desire to include as many important truths as possible into a small space, there is an apparent want of connection, which you will excuse; and also some meagreness of illustration. My object has been more to excite farther inquiry, than fully to elucidate; and you will be at no loss to find what you may desire in various works written by eminent men. The formation of a Library you will find of much importance; and I cannot urge too much your procuring Lecturers, to give oral instruction in various branches of knowledge.

FINIS.

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EXAMINATION

OF

MR. SCOTT'S ATTACK

UPON

MR. COMBE'S 'CONSTITUTION OF MAN.'

By Gottrell HEWETT C. WATSON.

"Where the feelings are allowed to predominate over the reason, in investigating a subject which appeals only to the understanding, it will generally happen that the judgment is defective."

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AN EXAMINATION, &c.

Mr. Combe's work on 'The Constitution of Man' is well known, widely circulated, and very highly esteemed by thousands of readers. Mr. Scott comes forward as the opponent of most of the views advocated in that work, and gives the following explanations of his reasons for doing so:—

" Although, during the first seven years after its publication, I did not consider an answer called for, seeing that it seemed to have excited little attention; the case was altered after it appeared that the sale of it increased to many thousands, among a class of readers not the best fitted to detect its fallacies; and that it was circulated chiefly in those places where the population had far outgrown the means of proper Church accommodation; and where, of course, it was offered to the people not along with, but in lieu of, religious instruction. It was then pressed upon me by several friends. that the work ought to be answered, and that I ought to undertake the task, as I understood the subject of Phrenology, as maintained and taught by Mr. Combe, and was able to address him in his own language; and that as I had already studied his book with the view of answering it, the labour was already half performed."

As some hundreds (not to say, thousands) of persons now understand Phrenology, as taught and maintained by Mr. Combe, it is not very clear how the circumstance of Mr. Scott being one of them should cause him to be particularly singled out for the performance of a duty, which the fact of his having already studied the work with the view of answering it" would stamp as a self-

imposed task. I perfectly agree with Mr. Scott's friends that any published work ought to be answered, if containing serious moral errors. And if the real motive of Mr. Scott's undertaking be a desire of refuting the errors contained in the work of Mr. Combe, with the hope of counteracting an injury thus threatened to others, I also may plead the call of duty, urging me to examine the errors contained in Mr. Scott's work, and to expose its utter unfitness to give evidence against Mr. Combe's views. The notice in the forty-ninth number of the Phrenological Journal must be construed as an intimation that Mr. Combe entertains no intention of doing this himself; nor should I have felt any desire to obtrude myself into a position declined by him, had it not been rumoured that a cheap edition of Mr. Scott's work is preparing for circulation among the people; - to return the words of Mr. Scott upon himself, "among a class of readers not the best fitted to detect its fallacies." Much better fitted are they, however, than Mr. Scott appears to believe, though a little assistance may do them no harm, as a preventive antidote.

In taking on myself this task, I must intimate that it is done by one who has already made his own decision on the demerits of Mr. Scott's essay; and who will write accordingly, not for the purpose of giving a full review of its contents, or of discussing the questions treated of in 'The Constitution of Man,' but for the purpose of showing how immeasurably this work of Mr. Scott falls short of its lofty pretension of refuting Mr. Combe's philosophical doctrines. Without subscribing to the whole of those doctrines, I am well satisfied that they are generally sound in principle, and are calculated to effect great good. I am just as well convinced that Mr. Scott's present work is largely diluted with error, is calculated to injure superficial readers, and has been written under bias greatly distorting the judgment of its author. I

hope elsewhere to enter upon some consideration of the philosophical doctrines maintained by Mr. Combe; and shall then have the opportunity of mentioning one or two points, in regard to which, it seems to me, that Mr. Scott's opinions are more tenable than those of Mr. Combe. Generally it appears to be quite the reverse.

Mr. Scott's treatise is divided into twelve chapters, and occupies 332 pages, besides a long preface. To go regularly through the whole, and expose all the misconceptions and errors contained in it, would be an unprofitable waste of time, type, paper, and every thing else. I shall therefore take the Preface and First Chapter, for examination; and shall presume the whole work morally overturned, if I am successful in showing from these that Mr. Scott has greatly misconceived the statements and opinions of Mr. Combe (such misconception being proved by the strange manner in which Mr. Combe's essay is misquoted and misrepresented), and has made numerous errors and inconsistencies in his own arguments.

MR. SCOTT'S PREFACE.

The very first page of the preface accuses Mr. Combe of attacking "divines as guilty of gross neglect of duty in not at once adopting" his phrenological "views, and following them out in all their consequences in their instructions to the people." This statement is so much an exaggeration as to be scarcely any thing else than a misstatement. Mr. Combe says that divines have been too apt to disregard the lights of science, and in neglecting to avail themselves of the advantages afforded by knowledge, they have failed to effect that degree of good which they otherwise might have done. This is a mere truism, applicable not only to divines but to many other teachers; and, so far as I can find by his works, Mr. Combe limits himself to this intimation, and to pointing out certain circumstances which have stood in the way and prevented

the full benefits expected from the exertions of divines. A short extract from the work in question will show, that whilst he points out the causes of their want of success, he still speaks of divines with due respect. The supposition of extreme cases will serve as an introduction to a passage, which may not be understood in all its force, when presented apart from the general text of the book. Let us first suppose the case of an individual attending church, who is entirely deaf. It is abundantly evident that the most eloquent appeals of a clergyman will be useless with this person; and that if his clerical guide would confer any religious benefit upon him, the defect must be first known, and removed, or some other mode of instruction resorted to. Suppose, again, that instead of deafness, some disease or malformation of brain renders the individual incapable of correctly appreciating the admonitions of his pastor. The instructions of the latter will be just as completely thrown away whilst he remains ignorant of the impediments. These are extreme, but plain, instances, which every one must see. We will now let Mr. Combe add a third supposition, equally plain and indisputable to those who have studied the influence of the brain, though less obvious to ignorant persons. -"If certain physical circumstances and occupations have a natural tendency to blunt all the higher feelings and faculties of the mind, in consequence of their influence on the nervous system in general, and the brain in particular, and if religious emotions cannot be experienced with full effect by individuals so situate, the ascertainment, with a view to removal, of the nature, causes, and effects, of these impediments to holiness, is not a matter of indifference. This view has not been systematically adopted and pursued by the religious instructors of mankind in any age or any country, and for this sole reason, in my humble opinion, that the state of moral and physical science did not enable them either to appreciate its importance or carry it into effect." How widely unlike an attack upon divines for gross neglect of duty does this passage read! Now we must call on Mr.

Scott to make good his words, by adducing some passage in which Mr. Combe has attacked divines for gross neglect of duty in not at once adopting phrenological views. And as to following out such views in all their consequences, Mr. Combe does not himself attempt this. Nay, he expressly intimates that ages must elapse before it can be done.

Arguing on his assumed ground, that Mr. Combe attacks the divines for being unacquainted with Phrenology, and for not teaching it to their flocks, our author contends that it is a recent science, yet imperfect; and that the clergy, as a body, are necessarily ignorant of it, and consequently unable to teach it if approved of, or to refute If Mr. Combe has not attacked it if deemed erroneous. the clergy, as stated by Mr. Scott, this ingenious defence is just a waste of words. But the clergy have had the same opportunities as other persons, for learning the doctrines of Phrenology; though, under all the circumstances of the case, no tolerant person would condemn them for being yet little acquainted with these doctrines, as a body. Moreover, many individuals among the clergy are warm advocates of Phrenology; although several circumstances combine to make the medical profession first adopt and appreciate the subject.

Mr. Scott next proceeds to explain his own connection with Phrenology; which being merely a personal matter need not detain us. He follows this with an insinuation that the extensive circulation of Mr. Combe's work has been brought about by eleemosynary aid. There is no direct statement to this effect; but readers ignorant of the facts of the case could scarcely fail to draw such a conclusion, from the following passage, if not previously warned against doing so:—"It was not until, by aid of the 'Henderson Bequest,' he was enabled to reduce the price, that it came to have any considerable circulation." The earlier circulation of Mr. Combe's work depended almost entirely

on phrenologists, as Mr. Scott well knows; and at the date of its first publication, they were few in number, and struggling against vehement opposition and obloquy. Since then, phrenologists have increased ten or twenty fold, and the public has been taught to appreciate the work. The "Henderson Bequest" reduced the price of only 2000 out of 26,000 copies sold; to say nothing of 8000 (or 13,000) copies now in press, or lately printed.

But the fact of the increased and increasing demand cannot be got over; so in the true spirit of disparagement, we have the following causes alleged:--" I am not surprised at this extensive sale of the Essay, as, along with many errors, it contains much that is both instructive and amusing. contains an account of the interesting discoveries of Gall and Spurzheim, together with other matter well adapted to the class of readers for whom it seems principally intended. This, with the extraordinary cheapness of the work, may account for its extensive sale." The "interesting discoveries of Gall and Spurzheim" are more amply set forth in works of less price than the 'Constitution of Man:' and, though the extraordinary cheapness of the work is one cause of its extensive sale, yet it would be absurd to suppose that persons bought even a cheap book of this nature merely on account of its cheapness. The primary cause of the whole circulation cannot be disguised by a covering so flimsy; and that primary cause is the esteem in which the work is held. It was the value of the work which induced the late Mr. Henderson to appoint part of his bequest to procure a cheap edition of it. And as to the "People's Edition," it was solely owing to the high estimation in which the work was held, that the publishers ventured to bring out an edition at a price so low. It is the certainty of an extensive demand that authorises the reduction of price. The intrinsic merit of the work has thus created both the cheapness and the great sale. And further, it is to the value of Mr. Combe's work, that Mr. Scott will be indebted for the circulation of his

own. One word more on this topic: great sale is no proof of absolute value; but, generally speaking, among works treating of the same subjects, the best will sell best; puffing and such-like other extraneous aids being out of the calculation. Now, works on Moral Philosophy have not usually proved saleable ones, and Mr. Combe is too honourable and independent to buy newspaper-puffs or other underhand assistance.

Next comes the paragraph already quoted (page 3.) as Mr. Scott's reason for publicly answering the work of Mr. Combe. There are some other statements in that paragraph which require a moment's attention. I am at a loss to understand how Mr. Scott can know where the work is chiefly circulated, and whether it is bought chiefly by persons destitute of the opportunity of religious instruction. But even supposing his statements on this head to be accurate guesses, it would still be a ridiculous perversion of words to say that the work is offered to them in lieu of religious instruction. Were Mr. Scott to go and lecture on Astronomy or Phrenology, in a village destitute of a church, who could be so absurd and disingenuous, as to say that he was offering the inhabitants Astronomy or Phrenology in lieu of religious instruction! Here we suppose the case of Mr. Scott actually seeking that particular place, and really offering his lectures to the particular persons destitute of church accommodation. Mr. Combe, however, offers his Essay to the public at large, by far the greater portion of whom can have church or chapel accommodation, if they wish it; and he offers it in lieu only of ignorance and error.

On the succeeding page (xiv.) we find the following passage, which so nearly describes the difficulties of answering Mr. Scott's own book as almost to supersede the necessity of explaining wherefore a part only has been selected:—"Mr. Combe's work takes so wide a range, embraces or touches so vast a variety of subjects, and contains

so great a multitude of errors, that in order to answer it completely—to separate the chaff from the wheat—and, admitting what may be true, to expose and refute all that is erroneous,—it would be necessary to write, not a book, but a library." Had the work of Mr. Combe contained a tithe of the proportion of chaff to be found in that of Mr. Scott, the latter would have had little reason to be angry at its extensive sale. And though I have intimated how impossible it is, in a brief space, "to expose and refute all that is erroneous" in the work of Mr. Scott, he has fortunately facilitated an approximation to this, by so dexterously making one part refute another, that a pair of scissors might do a great deal towards refuting the whole.

Some theological points are then alluded to, and Mr. Combe is accused of attacking the doctrines of the Scottish ["our"] clergy. If to make certain statements of fact, and to express certain opinions, neither of which exactly accord with the creed of some particular church or sect, be to attack the clergy, Mr. Combe has been guilty of this sin, like almost every other writer on moral or natural science. But Mr. Combe's alleged attack upon the doctrines of the clergy, in this instance, is just about as much of an attack as was that already noticed on page 5. After attempting to explain the circumstances which led theologians to suppose that human nature contained no elements of improvement in itself, he concludes thus:-" I am far from casting blame on the individuals who fell into these mistakes; such errors were inevitable at the time in which they lived, and with the lights which they possessed; but I point them out as imperfections which ought to be removed." I think, with Mr. Scott, that Mr. Combe would have acted more judiciously in avoiding any allusion to theological doctrines in a purely philosophical work. [Such, at least, appears to be the feeling of Mr. Scott, in the earlier part of his treatise (page 2.); although he afterwards (page 322.) writes, "I conceive that Mr. Corabe is

inexcusable in omitting to take any notice of a future state."] So long as theologians keep their doctrines apart from rules of conduct in this life, it is easy to avoid collision therewith; but when they are forced upon others, as the basis of practical rules of conduct, it is obviously impossible to avoid a virtual, if not an avowed, assent or dissent to them.

Our author next proceeds to specify what he calls Mr. Combe's objections to the "Paradisaical State of our First Parents," &c. As they involve questions of theology, I shall decline entering into their consideration; but may give one instance showing the method by which Mr. Scott vamps up these objections for Mr. Combe. His eighth chapter is headed "Mr. Combe's Objections to the Paradisaical State:" and under this head he introduces certain extracts from Section V. of the 'Constitution:' which section is headed by Mr. Combe "Faculties of Man compared with external Objects." The following is one of the extracts:-"It is clear that the gift of an organ of Cautiousness implied that man was to be placed in a field of It is adapted to a world like the present, but would be at variance with a scene into which no evil could intrude." Now, this passage, introduced under Mr. Scott's headtitle (the italics also being his own), does read very like an "objection." But, deprived of its italic letters, and placed under Mr. Combe's own head-title, it only proves that man is well adapted to the world in which he is living, and such was Mr. Combe's evident meaning. The extract, in fact, becomes "an objection," through Mr. Scott's own misposition of it!

The following passage relates to a more important practical question, than the purely theological doctrines, and cannot be passed over:—" Mr. Combe's system proceeds on a principle directly opposite to that of Christianity. That system aims at improving the moral nature of man in the *first place*, holding that, if this were attained, all other improvement would necessarily follow. Mr. Combe, on the

contrary, maintains that, in order to improve the moral nature of man, we must first improve his physical condition; and, accordingly, he directs our attention almost exclusively to the petty details of diet, clothing, exercise, &c., what we shall eat, and what we shall drink, and wherewithal we shall be clothed.' " I have already instanced the extreme case of loss of labour in preaching to a deaf man, or to one so insane or idiotic as to be utterly incapable of appreciating the precepts of Christianity. It is just as evident that the newly-born infant cannot have its moral nature improved by religion, without first being fed, and clothed, and having attentions bestowed on its physical condition. The growing child must still be fed, and clothed, and instructed in many things, before it can be made to understand moral or religious duties. So also must the ignorant savage. So also must the untaught inhabitant of a Christian country. So also must the most highly educated and intellectual persons, if their faculties are prostrated in utter drunkenness, or raving in the delirium of fever. It would be absurd to say, that we are to neglect the physical condition of these individuals until their moral nature has been improved; and if in these cases we are forced to attend to the physical condition first, why is it to be neglected in those other cases, where some preliminary change therein is just as indispensable, although it may not be required to an equal amount? The vessel must first be made capable of receiving the things it is intended to contain; and every one-Mr. Scott not excepted - practically believes, that if he fail to take proper food, &c., he will also speedily fail to understand Christianity and everything else. Moreover, it is an ascertained fact, that physical suffering is invariably accompanied by moral inferiority, in nations.

A few lines afterwards, in reference to Mr. Combe's essay, we have the following notable mis-statement;— "intended, it will be observed, as a practical manual of conduct, for the use chiefly of the lower classes." That "The

People's Edition" is intended chiefly for the use of persons of limited means, is implied in its name; but that Mr. Combe wrote his essay chiefly for such persons, or with any prospect that its circulation would be chiefly among the working classes, is contradicted by the very facts mentioned by Mr. Scott. He expressly states, that it was not brought within the means of the poorer classes that is, not republished in its cheaper form—till seven years after first publication; and then the experiment was made by the suggestion of another person, not of the author himself. It would have been wiser in Mr. Scott to have shewn some good reason for his assertion, instead of making it altogether as a volunteer-explanation of Mr. Combe's intentions; an explanation which appears to be entirely gratuitous, and destitute of any plausible foundation either in fact or in probability. In the very first line of the first edition, the author says that he offers it to the "Public;" not a word about any particular class of the public being mentioned. And, more than this, the actual sales shew it to have been bought to a greater extent by the middle classes, if we are to take the prices of the editions, and the comparative numbers of the different ranks, as the proper tests.

On the next page, there is a far worse misrepresentation, induced by the suppression of part of a passage quoted, the portion given by Mr. Scott conveying quite a different meaning when seen by itself. He has it thus:—"He labours to shew that his system is in harmony with the precepts of Christianity; and yet he most inconsistently declares, that these precepts are 'scarcely more suited to human nature and circumstances in this world, than the command to fly would be to the nature of the horse!" Any reader may judge of the fairness of this representation, by seeing the whole passage. Mr. Combe remarks that the people hear the precepts of Christianity in churches, on Sunday, but that the great body of the community—lawyers, merchants, manufacturers, farmers, mechanics, and others — spend

their whole energies, in their several callings, during the rest of the week, devoting little or no leisure time to religion; and that Sunday again "dawns upon them in a state of mind widely at variance with the Christian condition." And he adds, afterwards; - " It is in vain to say to individuals that they err in acting thus: individuals are carried along in the great stream of social institutions and pursuits. The operative labourer is compelled to follow his routine of toil under pain of absolute starvation. The master-manufacturer, the merchant, the farmer, and the lawyer, are pursued by competitors so active, that if they relax in selfish ardour, they will be speedily plunged into ruin. Ir God has so constituted the human mind and body, and so arranged external nature, that all this is unavoidably necessary for man, THEN the Christian precepts are scarcely more suited to human nature and circumstances in this world, than the command to fly would be to the nature of the horse." The words, as quoted by Mr. Scott, are the words of Mr. Combe, but they are not the whole words, and herein lies all the difference. Any candid reader must see, that Mr. Combe's intention was to shew that the habits of society are at fault, not that Christianity is to be rejected as unsuitable to man. By omitting the previous words, and especially the doubtful or conditional 1F and THEN, Mr. Scott has given an entirely opposite signification to the passage. This might be held an ingenious trick in pleading a cause; but let others decide how far it is justifiable.

Mr. Scott thus sums up, as a finale to his prefatory remarks on 'The Constitution of Man:'—"The above may serve as a specimen,—but it is quite clear that we are yet merely on the threshold,—that Mr. Combe has but just broken ground before the walls of our Zion, and that he already contemplates still greater triumphs. Indeed, he has not left it to inference, but has openly declared his aim to be nothing less than to plant the standard of Phrenology on the very pinnacle of the Temple, and to make our pulpits resound with the preaching of 'The Natural Laws!' He loudly accuses our divines as blind guides, because they have not already adopted these in their instructions to their flocks, instead of the clear and simple morality, and the sublime and consoling doctrines of the Gospel."

I retort the words, - " THE ABOVE MAY SERVE AS A SPECIMEN;" and a pretty specimen of Mr. Scott's mode of refuting philosophical errors I am now holding up to view. But let us have a sample of Mr. Combe's loud accusations against the divines, (I have shewn examples of his "attacks,") because they have not already adopted the natural laws in their instructions, instead of the morality of the Gospel:--" If the doctrine unfolded in the present treatise be in any degree true, it is destined to operate proportionally on the character of clerical instruction. Individuals whose minds have embraced the views which it contains. inform me that many sermons appear to them inconsistent in their different propositions, at variance with sound views of human nature, and so vague as to have little relation to practical life and conduct. They partake of the abstractedness of the scholastic philosophy. The first divine of comprehensive intellect and powerful moral feelings, who shall take courage and introduce the natural laws into his discourses, and teach the people the works and institutions of the Creator, will reap a great reward in usefulness and pleasure." And again: "The views developed in the preceding chapters, if founded in nature, may be expected to lead, ultimately, to considerable changes in many of the customs and pursuits of society; but to accomplish this effect, the principles themselves must first be ascertained to be true, and then they must be sedulously taught. It appears to me that a long series of years will be necessary to bring even civilised nations into a condition to obey systematically the natural laws."

The remainder of the Preface is occupied by personal matters, of little interest to others, and chiefly connected with a different publication. Touching these, it may be remarked, that Mr. Scott is neither liberal in his comments nor warranted in his conclusions from the letter of Dr. Thomson; and though unable to speak positively to the facts of the case, I strongly suspect that Dr. Thomson and his party seceded from the Infant-School party, in consequence of being outvoted by the latter, and not from any dislike to Mr. Combe in particular, who was only one of a party obnoxious to them. Though in Edinburgh at

the time, and hearing the subject discussed by persons concerned; yet, as a stranger to the local politics of conflicting parties, in Church and otherwise, I may not have fully understood, or now correctly remember, the particulars. If the surmise be wrong, I beg pardon of Mr. Scott for thus mentioning a suspicion that may appear like a contradiction of his statement, on insufficient grounds. As to the cause of Dr. Chalmers's silence, the inference of Mr. Scott appears to be correct. He was little likely to approve a book which is so much better, as a philosophical work, than any which his clerical shackles would allow him to write.

So much for the accuracy and consistency of Mr. Scott's Preface. The rest of the book is on a par with it, if not worse; and I presume, it will now be admitted, that to wade through twelve chapters written in such a strain, would be a thoroughly irksome and unprofitable use of time. Whether Mr. Scott so grievously distorts and misrepresents the statements of Mr. Combe, by design, or through some unavoidable obliquity of reasoning, I cannot pretend to say; not taking on myself to fathom his intentions so easily as he would have us believe himself able to penetrate those of Mr. Combe. Neither do I wish to accuse any one of want of candour and veracity, while it is possible to attribute to misconception all his misstatements. Whatever the cause may be, it is an indisputable fact, that Mr. Combe's opinions and arguments are greatly misrepresented in the "Harmony;" more than one instance of which I have already given, and others will presently appear.

MR. SCOTT'S FIRST CHAPTER,

The essay of Mr. Combe has, for its principal object, a consideration of the most effective measures for increasing the happiness of the human race. As a preliminary investigation, it is necessary to inquire into the nature of

man, and his relation to the rest of creation; because, in the absence of this knowledge, any attempt at improving his condition must be mere guess-work. Such an inquiry may be reduced to three questions: -- What is human nature? What is external nature? What are the connexions or mutual influences of the two? A complete answer to these questions would require a complete knowledge of all the laws which determine the several events occurring in the universe. Such an answer is obviously impossible at present; and there seems to be no prospect of this impossibility ever being removed. Our approximation towards such a state of complete knowledge is becoming closer, -or, rather, it is becoming less remote, daily: but the distance must still be enormous. We may not yet have a greater insight into the order or plan of nature, proportionally speaking, than a domestic dog has insight into the order or plan of all human actions. Under such circumstances, any attempt to specify a fixed principle, which shall apply to the whole order of nature, can be at best only a plausible conjecture.

Mr. Combe says that "the world appears to be arranged, in all its departments, on the principle of gradual and progressive improvement." He thinks, with many others, that the records of Geology (fossil remains of organised bodies, &c.) tend to shew such a course of progressive improvement prior to the ascertained existence of man upon earth. And he further supposes that man has inherent tendencies to improvement, and that the human race, as a whole, is now in a course of progressive improvement, and has been so through the historical era. I quite agree that man has these tendencies to improvement, and that the race has kept on in a progressive course from past to present times; but must differ from Mr. Combe in one important point, namely, the general application of this progressive principle; my reasons for which, it will be

better to explain elsewhere, without interfering with the object at present in view.

Mr. Scott contends for a first state of perfection in man and the rest of creation, a subsequent degeneracy, followed by an increasing deterioration or an utter standstill, and an incapability of improvement without the direct and repeated interference of Divine Power. He differs entirely from Mr. Combe, on this point, and it seems on almost every other point also; but his first chapter is occupied by a consideration of this progressive-improvement principle, and it is to the first chapter that I have to direct attention at present, while entering on an examination of the success with which he does battle against Mr. Combe's views.

The chapter is divided into five sections. The first of these sections is headed, "Mr. Combe's analogies in support of his hypothesis." In order to appreciate the counter-arguments of Mr. Scott, it will be requisite to call to mind what Mr Combe's hypothesis and analogies are. He writes,—"The constitution of this world does not look like a system of optimism. It appears to be arranged in all its departments on the principle of slow and progressive improvement. Physical nature itself has undergone many revolutions, and apparently has constantly advanced. Geology seems to shew a distinct preparation of it for successive orders of living beings, rising higher and higher in the scale of intelligence and organization until man appeared.

The globe, in the first state in which the imagination can venture to consider it, says Sir H. Davy, appears to have been a fluid mass, with an immense atmosphere revolving in space round the sun. By its cooling, a portion of its atmosphere was probably condensed into water, which occupied a part of its surface. In this state no forms of life, such as now belong to our system, could have inhabited it. The crystalline rocks, or, as they are called by geologists, the primary rocks, which contain no vestiges of a former order of things, were the result of the first consolidation on its surface. Upon the further cooling, the water, which, more or less, had covered it, contracted; depositions took place; shell-fish and coral-

insects were created, and began their labours," &c. &c. "Five successive races of plants and four successive races of animals appear to have been created, and swept away by the physical revolutions of the globe, before the system of things became so permanent as to fit the world for man," &c. &c. "At last man was created, and since that period there has been little alteration in the physical circumstances of the globe."

The reader will please to remember that such descriptions as this are not statements of facts, but of inferences -guesses - drawn from certain facts ascertained by geologists; and that geologists widely differ amongst themselves as to what are the proper inferences. Mr. Combe speaks only of the appearance of progressive improvement, and Davy's description commences with the admission that it is an imaginative one. Moreover, Mr. Combe intimates, by a foot-note, that he takes this description, " on account of its popular style;" and he further adds that Lyell "controverts the doctrine of a progressive development of plants and animals." He afterwards says, -" This brief summary of the physical changes of the globe, is not irrelevant to our present object. The more that is discovered of creation, the more conspicuously does uniformity of design appear to pervade its every department. We perceive here the physical world gradually improved and pre-pared for man."

These extracts suffice to shew that Mr. Combe adduces the inferences of geologists, simply as an analogical or apparent ground in support of his supposed principle of progressive improvement in the world at large. The principle of progression is just as complete, whether effected by a single original flat of the Creator, or by repetitions of such; and all the events of the series are just as much brought about by that Creator. Now, who would believe that Mr. Scott could overlook all this evident meaning, could pick and cull a few detached sentences from the imaginative description of Davy, and then quote them as if they had been stated by Mr. Combe to be ascertained facts, and as if they had been adduced by him as his

proof in support of a totally different supposition, namely, that the world, IN ITS PRESENT STATE, contains within itself the elements of improvement which time Alone will evolve and bring to maturity! Mr. Combe neither gives them as positively ascertained facts, nor does he state them as proofs of this latter proposition.

Let us examine whether there are any grounds of excuse for such a jumble of confusion and misrepresentation. another page of his volume, Mr. Combe has the following passages: -- "In our own country two views of the constitution of the world and of human nature have long been prevalent, differing widely from each other, and which, if legitimately followed out, would lead to distinct practical results. The one is, that the world, including both the physical and moral departments, contains within itself the elements of improvement, which time will evolve and bring to maturity; it having been constituted by the Creator on the principle of a progressive system, like the acorn in reference to the oak," &c. &c. "The other hypothesis is, that the world was perfect at first, but fell into derangement, continues in disorder, and does not contain within itself the elements of its own rectification," &c. &c. "It appears to me extremely difficult to reconcile these conflicting views." Mr. Combe does not expressly adopt either of the views stated; but he obviously leans to the former, and Mr. Scott assumes him to have adopted it. It must be observed, however, that it relates to the world in its present state, -that is, since inhabited by man. Mr. Scott ingeniously modifies the hypothesis by changing "time" into "sole operation of time," - as if time were an active cause, and stated to be the only agent required. He further quotes garbled extracts, as above intimated, from a passage relating to the past condition of the earth, suppressing the fact of the passage being put forth merely as an imaginative or inferential description. And lastly, he adduces these garbled extracts as containing Mr. Combe's arguments in support of the hypothesis, altogether unconnected with them, and improved by Mr. Scott's own peculiar additions, as just shewn!

Founding upon such perverted readings of Mr. Combe's essay, our author then makes merry with what he is pleased to call the logic of Mr. Combe; reducing it into the following form,—"The world originally did not contain within itself the principles of improvement, therefore it does contain with itself the principles of improvement.—Q. E. D." The logic created by Mr. Scott, for Mr. Combe, is accurately enough represented here; but his own logic admits of another form, equally inconsequential, and less innocently so, namely,—Mr. Combe did not reason thus, therefore I say that Mr. Combe did reason thus.—Q. E. D.

By so assuming the inferences of some of the geologists to be ascertained facts, and further assuming that the supposed changes, inferred to have taken place in physical nature, required a direct interference of the Creator, Mr. Scott contends that the analogy is in favour of his presumption of such interference being now required in the moral world. However feeble and remote, still the analogy would lean this way, if the premises were sound. I have intimated that such premises are mere inferences, and they are inferences of very doubtful character for accuracy. I must add that the facts of geology, explained by the only test which science can legitimately apply to themnamely, the causes now in action - lead to inferences shewing a very different course of events prior to the time when man is supposed to have commenced his existence. And thus explained, they give some probability that the earth has contained within itself the elements of all the changes hitherto unfolded to us by geological researches. In the present state of scientific knowledge, a philosopher, reasoning solely on philosophical grounds, is not entitled to say that the productions of our globe were created by the direct exercise of Divine Power. The existence of the earth itself may be only one of a long series of changes in our planetary system, ultimately

referrible to the Power that has fashioned all things, but which may have required no more direct interference than the creation of Mr. Scott's essay itself has required. Even that must ultimately be traced back to the Universal Power, indifferent as it is.

But all such analogies as these, traced between things so unlike, are to be received with much caution. And remote as the analogy is, on the geological side it depends, as I have explained, on premises which are themselves the mere speculative inferences of particular individuals, reasoning upon few facts, and those facts being of a kind exceedingly likely to be misunderstood. Mr. Combe's inferred analogy is logically deduced from his real premises, and Mr. Scott, with all his ingenious distortion, has failed to prove it otherwise. Whether the premises are sound is another question, to be left to the geologists.

The second section of the chapter is entitled, "Analogies tending to prove the opposite of Mr. Combe's doctrines." The following passage occurs near the commencement of the section; - " From all that can be gathered of the history of the earth and its productions, either from observation of their past and present state, or from the researches of geologists, there appears nothing like progressive creation or evolution of individuals or species in any department of nature. new species of plants or animals appears to have been created, there is nothing like gradation or progression. species is not derived from an older and more imperfect one, but starts at once into existence, at the Almighty fiat, in all its completeness and perfection." When Mr. Scott adduces speculative opinions, such random assertions may be swallowed by the superficial; but when trenching upon the ground of natural science, it behaves him to be a little more cautious what he writes. Does he pretend to be acquainted with all that is known of the past and present state of the earth and its productions? May it not be suggested in reply, that his utmost knowledge herein consists in having read a few pages of some popular

work on natural history? Geology, be it observed, has shewn nothing whatever concerning the creation of races or individuals. Neither the mode of creation, nor the first state, nor yet the last state, of any race or species, has been in the slightest degree explained by geological discovery. The fossil records of past life are limited to incomplete representations of the state of individuals at death; and in the older deposits the remains are scarcely more than mere copies of their shapes. In the more recent deposits, good skeletons, &c. are found; but in all likelihood, the stony models and skeletons, which have hitherto met the eye of man, will not bear the proportion of one individual out of every million that have existed. Granting this, how can any sober reasoner assert positively, on such meagre evidence, that intermediate forms and structures have not existed? Geology is far too imperfect yet, to allow of any fair presumption, from its individual facts, either of the transition or non-transition of one species into another. On the great scale, it is as clear as such evidence can make it, that one species has been substituted for another, but we know not how this substitution has been brought about; and, allowing for the difference of time, it may well be questioned whether the changes brought to light by geological researches, at all exceed the changes now effected in the vegetable world by human efforts. So far, therefore, Mr. Scott's analogy goes for nothing. Ex nihilo nihil fit.

He next endeavours to shew that the present species have not changed. At least, this seems to be the proper inference from his general argument (though in some cases he appears to suppose a change for the worse), and is borne out by his reasons for quoting the scriptural notices, presently to be mentioned, where he says, "I refer to the above passages, merely as occurring in the most ancient writings in the world, to shew that the productions of nature described in them, possessed, upwards of three thousand years

ago, the same qualities as they do now, and that no improvement or alteration ever has taken place in these qualities."

Our author's proofs that the present species have not changed, commence with the quotation of certain scriptural notices written in the figurative style of the East; and if we are to take these descriptions as being literally true, and then compare them with the matter-of-fact descriptions of our present naturalists and travellers, we must not only decide against any improvement, but allow very great degeneracy. Now-a-days, we have no beasts that drink up rivers at a draught, and none with tails like cedartrees; yet if we must take the scriptural notices literally, such creatures did live three or four thousand years ago. Neither, in the present day, have we any horses whose necks are clothed with thunder; but since such descriptions fail to give us any exact information as to the number of pounds which the horses of ancient days could bear or draw, or to tell us what was their speed as measured by time, we know not how to construe the figures employed in Scripture. When Mr. Scott has enlightened us on these little matters, we shall be put into a condition for deciding whether the horse has improved, degenerated, or remained the same.

In a foot-note, our author refers to a more precise kind of evidence, namely, the circumstance of Cuvier having examined the Egyptian mummies, and found the embalmed animals exactly accord with those of the present day, including dogs, cats, monkeys, and others. But I fear this "proves too much." Mr. Scott himself, with all his easiness of assertion, will not venture to affirm that all our breeds of dogs were known to the Egyptians three thousand years ago. How then is it possible that "not the smallest difference is to be perceived?" We may have some dogs which closely resemble the canine mummies of Egypt; but the question is not whether every individual dog of to-day is an improved animal.

If we have one single breed superior to the breeds of past ages, then has the dog been improved as a species. Moreover, Cuvier expressly intimates that he cites only the evidences of two or three thousand years ago, a space of time which shrinks to a mere point, if compared with the eras of geologists; possibly, not bearing so high a proportion to geological durations of time, as a single hour, or a single second, bears to a thousand years. Further, we have good grounds for inferring that only a very slight alteration of climate has occurred during these two or three thousand years, while enormous variations are supposed to have taken place during the geological eras. An illustration may assist in shewing the liability to false inferences, by predicating of a long series of events from inspecting a small part of the series. middle period of life, many individuals change so gradually that we see little difference between the same person on the first and last day of the same year. Yet is a year one-seventieth part of a life; and in the seventy years an individual passes from infancy to manhood, and thence wanes again to feebleness. Now, two or three thousand years may not be the seventieth, or even the sevenhundredth part of the duration of a species; so that an inappreciable change for two or three thousand years, were it established, would be no very cogent argument against a great change during the full series of time and events.

So much for the evidences of geology and history, and of embalmed remains. They are much too meagre and inconclusive to be founded upon; and howsoever they may tend, in the opinion of Mr. Scott, "to prove the opposite of Mr. Combe's doctrine," most assuredly the tendency is immeasurably short of proof; and in my opinion, they actually tend the other way. But the question as to what now occurs, as to what is effected by human labours under the present lights of science, is a

much more tangible subject. Is it not an indisputable fact that man has effected very great changes in the breeds of animals, where interest has prompted him to make efforts for this purpose? We cannot say that he has ever yet succeeded in changing one species of animal into another known species, or of establishing a new species by any modifications of one already in existence; but if he had effected this, the chances are a thousand to one against our knowing the circumstance, since available descriptions of species are the work of the last hundred years only, and even yet there is not the zoologist or botanist who can give any definition or explanation of what constitutes a species. The nearest approach towards bringing about a sudden change of species, occurs in the production of hybrids or mule-breeds. This is something; but it is not the way for permanently converting or creating species, if it be possible to do so at all. These hybrids rarely breed with each other; and, when mixing with the original stocks, they soon revert back so far as to be undistinguishable. If man is ever to create a permanent species, he must go to work in a much more gradual manner, by coupling together varieties becoming more and more unlike the original stock at each descent. We have yet to learn what would be effected by following this course through several hundreds of successive descents. It would almost seem as if the dog had been thus created. If not, where is the original stock to be found? The domestic dog has become wild in America and elsewhere, but in what place is the wild stock—the forefather race of our domestic dog to be looked for? We must allow that the evidence afforded by the higher (vertebrate) orders of animals is very slight either way; but so far as there is evidence, it "tends" to show a possibility of change and progression.

In the vegetable world, however, it is peculiarly man's interest to bring hundreds or thousands of species (as

they are called) into a domesticated state, to use his utmost skill in bringing about considerable changes in many of them, and to keep extending these changes. The extent to which their external circumstances can be varied, and the facility of rapidly producing many successive generations, with other peculiarities appertaining to vegetable life, afford additional aids to his exertions. Accordingly, we find varieties produced, and regularly continued by descent, having greater differences between themselves, than are seen between other races generally supposed to be distinct species. So much do our gardens now abound with intermediate varieties or transitionspecies, so gradually is one kind run into another, that the united skill of all the botanists in the world would fail to distinguish them. Nor are such changes effected only by the exertions of man. So little are species distinguishable, so liable are some of them to run into variations, that no botanist can now tell what are the distinct species of rose, bramble, willow, mouse-ear, sedge, and many others, even in their wild states. How truly ridiculous, then, is it for Mr. Scott to say that "each species, at its first creation, receives a distinct and definite constitution, which it transmits, without the capacity of improvement, through all succeeding generations;" and to add further, that this utterly unproved proposition, - nay, this proposition contradicted by every-day experience, is "consistent with all the known facts!"

In one sense, it is correct to say that species have received a definite constitution; but a capability of being changed and improved appears to be part of the constitution of each individual and race. The constitution of all bodies, organic or inorganic, is definite while they remain in statu quo; but if a change occur in the material body, a corresponding change of constitution also occurs. Now, so far as we can understand nature, absolute rest does not exist; everything is undergoing

change. Hence, the definite constitution of species can essentially mean only a close resemblance of condition and qualities between certain individuals; and the definite constitution of individuals can mean only an amount of change not measurable by our faculties.

But let us return from a question of little practical importance. Whether the constitution of each species be called definite or not so, Mr. Scott cannot escape the obvious fact, that human exertions have effected great changes in the breeds of domestic animals and plants; and these changes having been effected, the elements of such changes must have been in the world. How does he meet this difficulty? By two gratuitous assumptions, one of them so random and improbable, as to set at defiance all grave reasoning and sober observation. other is more plausible, namely, that many of the changes, called improvements, are in reality no such thing. But this is a proposition with which we need trouble ourselves very little. In the absence of any proper definition of the term improvement, we may safely leave it to the general verdict of the public, whether the green-gage plum-tree, with its luscious fruit, is not an improvement upon the austere-berried sloe-bush; whether the pippin and codlin apples are not improvements upon the wild crab; and whether the swift-footed greyhound, the intelligent lapdog, and the powerful mastiff, are not improvements upon any known wild race of dog, wolf, or fox, - for it is doubtful whether the dog has not descended from one or both of the two latter stocks. I shall presume public opinion to be given in favour of improvement here. Mr. Scott probably anticipated such a verdict, and is prepared to meet it by the other assumption above alluded to: to wit, that such apparent improvements are nothing more than a partial restoration towards an original state of perfection, from which the animals and plants have degenerated!

Certainly, this is a most complete way of overturning all evidence derived from our imaginary improvements upon organized beings. The only blemish in this beautiful speculation is, that neither geology, history, mummies, nor present observation, affords a shadow of evidence in support of it. Mr. Scott himself has first contended that the evidences of geology, history, and embalmed remains, go to prove the absence of any alteration in the different races of plants and animals; and immediately thereafter, with marvellous inconsistency, he boldly asserts that such changes have occurred, and that twice over, first downwards to degeneracy, and then upwards on the way to perfection again! Of course, it is incumbent on Mr. Scott to show where and when the green-gage, pippin, codlin, greyhound, lap-dog, and mastiff - or superior kinds of plums, apples, and dogs - existed in a wild state; otherwise we shall be compelled to refer their originally-perfect stocks to the creative energy of our author's own imagination.

Every fact of natural history seems opposed to Mr. Scott's curious notions on this topic. Whatever is known of the productions of the earth, is in favour of the presumption that the fruits and animals above mentioned, and hosts of others, are almost as much the creations of man, out of the materials of nature, as is the bread that he cats or the wine that he drinks. Whether this be the case — as, we may presume, most reasonable persons will hold it be --- or whether these be mere restorations from degeneracy; in either case, we are entitled to say, that the world does now contain within itself the elements of improvement, which man, aided by time and natural processes, is evolving. If external nature supplies the materials to be improved, and man supplies the power which fashions those materials, still man is only the agent of nature, and a part of the world; so that in every sense the world contains in itself the elements of all these improvements. And as they are yet proceeding, even at an increasing rate, the presumption becomes very strong that they will still go on to an extent the end of which we cannot at all see or conjecture.

In opposing these two sections of Mr. Scott's first chapter, I have been in some measure compelled to touch upon questions, the facts of which can be little familiar to general readers; but to explain them fully would require long statements out of place here. It is easy for Mr. Scott to make an affirmation or negation, and it would have been easy for me to rest satisfied with a simple contradiction thereto; but it appeared better to show, however partially, the nature of the ground upon which my contradiction must depend for its support. One word in conclusion. Zoologists and botanists have usually a predominance of the knowing over the reflective faculties. They observe well, but often reason wretchedly. Many geologists also partake of this mental peculiarity. Hence, while we rely on their observed facts, we must receive their inferences and conclusions with some caution.

In his third section, Mr. Scott labours to show that the evidences of history prove the human race to have been either stationary or degenerating, instead of advancing. Truly, many of us will remember the days, when, as schoolboys poring over the literary remains of Greece and Rome, and the magniloquent descriptions of their writers, we did entertain some vague ideas respecting the wonderful greatness and superiority of those nations; chiefly, it may be conjectured, owing to that trifling circumstance in the 'classical education' of youth, the being left in utter ignorance of all that related to our own country. Mr. Scott has escaped the contamination arising from intercourse with the world, and appears still to retain his childhood's veneration of antiquity, carried even to the length of a glowing admiration of the barbarian greatness

of Babylon and Egypt, of Greece and Rome; and he devotes sundry pages of eloquent declamation and ingenious argumentation, to support his hypothesis that the earliest were also the best and greatest nations. But nothing seems to have captivated his fancy so highly as the Pyramids of Egypt; on which account I shall select his arguments drawn from these structures, for a little critical examination. He writes thus:--"I allude to the temples and catacombs of Egypt; and, above all, to the Pyramids-those stupendous monuments, which seem to have been executed by a race of giants, and left standing as if in scorn of the weakness and degeneracy of all succeeding generations," &c. &c. "Nothing so simple was ever so sublime." "These monuments are vast in the aggregate—vast in the individual parts, -and the weight of the materials, and the power and science which must have been used in their construction, absolutely oppress the imagination."

What a grandiloquent flourish at the expense of us degenerate "succeeding generation!" But may it not be suggested to the author, that one reason of our modern kings not building great pyramids, even if so silly as to wish it, is the difficulty of persuading their people to let them waste the wealth of a kingdom, and the manhood of hundreds of thousands, in BUILDING A PYRAMID! This waste is presumed, supposing the erection of a pyramid to be still as difficult and tedious an undertaking, as it must have been in the days of his majesty Cheops, of pyramidal memory. But let us inquire about this, and see whether our author's imagination is not oppressed by the grandeur of his own description, more than by "the weight of the materials, and the power and science," &c. Our engineers of to-day would hardly find their imaginations thus oppressed. They would quietly sit down, and calculate the time and power necessary for effecting the object; and if the nation would provide the money, London would speedily provide the requisite quantity of science. skill and enterprise to boot; leaving plenty to spare for

rail-roads, American steam-packets, and any other hobby of the day.

If the Great Pyramid had been solid, and built wholly of granite, its weight would have approximated to six million tons. It is neither; and the probable weight may be guessed at from four to five million tons. rials of the Breakwater at Plymouth weigh two million tons, and there cannot be a moment's doubt that it might have been made twice the size if necessary. So little did this undertaking exhaust the energies or resources of the nation, that in all likelihood not a tenth of the whole population knew what our government was about; and it is not an improbable thing, that this page may fall into the hands of some intelligent and sensible man, who has never yet heard of the Breakwater. As in this case, the undertaking of piling up five million tons into a pyramid would be merely a question of pounds, shillings, and pence for the British government. The Breakwater cost upwards of one million sterling. Had it been made equal to the Great Pyramid in weight of materials, the expense might have been two and a half or three millions. During several years of the late wars with Napoleon, our government contrived to draw something like twice this sum monthly, out of John Bull's pocket, in the shape of taxes, and a further sum not much less in amount, by way of loans.

Then, as to the vastness of their dimensions. The Great Pyramid is estimated—for the reported measurements differ—at 480 feet in height, and 750 feet in the length of its side, or 3000 feet in circuit. The spire of St. Paul's, destroyed by fire, is said to have been raised to the height of 520 feet (forty feet higher than the pyramid); the height of the present cross being 370 feet. The circuit of the whole building is nearly 2300 feet. Including ten years for the formation of the road and hewing of the stones, thirty years were consumed in building the Great Pyramid; and, apparently, hundreds of thousands of men were

employed. At a conjecture—for I lack the data necessary to make any proper calculation—the steam power of England would enable a much smaller number of men to imitate this pyramid in as many months as it formerly required years.

It is hoped that Mr. Scott's oppressed imagination will find some relief from these hints; but I may add one other little fact, calculated to show how common-place an occurrence it is for the people of Britain to transport a weight of materials, such as exists in the Pyramids, without being at all oppressed in imagination or other-Our annual consumption of coal is fifteen million tons; or three hundred million tons in twenty years. Need we feel such wonder that Cheops could, in the same space of time, carry the materials for a pyramid only one sixtieth part of this weight, while commanding the wealth and labour of a whole nation? Why, instead of regarding the Pyramids as structures "left standing as if in scorn of the weakness and degeneracy of all succeeding generations," the coal-carriers of Britain will be apt to claim for them. selves a much greater physical power than was expended in these mighty efforts of departed greatness! Then, with respect to the use of physical power, it may be mentioned that the Manchester rail-road was opened in 1829; and that in six years thereafter the Americans had a thousand miles of rail-road in use; an extent likely to be more than doubled before 1840. Mr. Scott may contrast this ten years spent in road-making, with the ten years consumed by Cheops in making a road from his stone-quarries to his pyramid.

But he appears to have his own misgivings that it is the moral and intellectual superiority of the modern West over the ancient East, which prevents such absurd and tyrannical misuse of power. And anticipating this awkward comment upon his exaggerated pictures of ancient greatness, he proceeds:—"It may be alleged, that these

monuments only prove the intellectual greatness of the people by whom they were erected, but show nothing respecting their moral qualities. If, however, intellectual eminence be conceded to them, we are not lightly to presume moral inferiority. And here we are not altogether without some light to show, that in this respect also the most ancient nations were at least equal to all that have come after them. The traditions or histories of all nations bear witness to the comparatively pure morals and simple habits of their ancestors at the rise of each state, and the universal complaint has been, that as wealth and greatness have increased, virtue has disappeared."

Here we have another beautiful example of that consistency and logic so peculiarly our author's own. we are told that the greatness, indicated by extravagance in building, is a proof of intellectual eminence. Next, we are cautioned not lightly to presume moral inferiority when such intellectual eminence is present. And forthwith follows the information, that nations are most moral in their earliest career—that is, when they are not great and intellectual—and that virtue disappeared from these ancient nations as they acquired greatness. If we are to accept the last statement of this medley, for the real proposition of our author, - namely, that greatness and moralty were in an inverse ratio to each other, in the nations of antiquity—then has he deliberately walked into a sinking bog, and will have some difficulty in scrambling out of it; because, allowing us to be only on a par with the ancients, in these points of intellectual eminence and morality, we contrive to combine both in a tolerable degree, and one and one make two.

Not so fast, will cry some friend of Mr. Scott, an eel in the mud is not caughtup so readily as you may fancy. Take the following passage, and see how dexterously he first establishes these two things to have existed in the nations of antiquity, at separate eras, and then as smoothly runs them together, at the same date of three thousand years ago:—"In regard to intellectual attainment, at least, we have seen it proved that the most ancient nations equalled, or

rather surpassed, all that have come after them. The proofs from history, from existing monuments, from phrenological observation on undoubted cranial remains, all unite in leading to this conclusion. We have further seen that in every great people, the earlier periods of their history have been most remarkable for a pure state of morals, and that no great improvement in this respect has taken place since the earliest ages. If, then, we find the Egyptians and Babylonians, three thousand years ago, equal, in intellectual and moral qualities, to the principal nations at this day, what reason have we to suppose that their ancestors, the original stock from which they were derived, had ever been materially below the same standard?"

Mr. Scott flatters himself with having thus established the intellectual and moral equality, if not superiority, of the ancients. Touching the former quality, I may briefly name such small matters in art and science, as steam-engines, rail-roads, spinning-jennies, power-looms, hydraulic-presses, printing-machines, gas-lights, galvanicbatteries, air-pumps, balloons, telescopes, microscopes, magnets, chronometers, barometers, thermometers, electrometers. &c. &c. &c. Or the titles of a few popular books, of our own day, may suggest similar hints; such as Parry's Voyages, Cunningham's New South Wales, De Tocqueville's America, Faraday's Chemical Manipulations, Babbage's Economy of Machinery and Manufactures, Combe's Phrenology, Lyell's Geology, Proceedings of the British Association, Times Newspaper, Penny Magazine, &c. &c. &c.

But dare we confront Mr. Scott in defence of our moral superiority? For such "a tug of war," we must let "Greek meet Greek." If the moral superiority of the ancients be advocated by Mr. Scott, he alone shall meet himself, in the following eulogy of ancient virtues:—
"They personified and deified the passions, and even the lowest vices of human nature. War, drunkenness, and debauchery, and even theft, had each their tutelary gods, and the mode of worship was made to correspond to the supposed attributes of the deity. In such circumstances, the morality

of the ancient nations soon became equally depraved as their faith; and we may conceive what was the ordinary standard of conduct among the laity, when we find crimes of every shade and die perpetrated under the name of religion, and under the sanction of their priests. It is remarkable, too, that all this took place, not merely among the ignorant and barbarous tribes, many of whom remained comparatively free from such enormities, but that the abominations I speak of were carried to the greatest height by those nations which attained to the highest point of intelligence and refinement. It was not among the barbarous hordes of Scythia and Bactria, that the wickedness of a demoralising idolatry was carried to its greatest excess, but among the comparatively civilized and cultivated nations of Bahylonia and Egypt, of Greece and Rome."—(Pages 51, 52.)

It is only justice to Mr. Scott, to say that this passage is not actually among his proofs of the intellectual and moral superiority of the ancients. It occurs some twenty pages further in the book, where it had become convenient to bid them lay by their greatness, in order to supply proofs that the Christian nations (the moderns) have surpassed the Heathens (the ancients). However, it is to be borne in mind, that Mr. Scott adduces this as a true picture; and, as such, it must form part of the historical preofs of the great morality of those nations "which attained to the highest point of intelligence and refinement;" those of which "we are not lightly to presume moral inferiority;" and which were "equal, in intellectual and moral qualities, to the principal nations of Europe at this day."

Sections IV. and V. are given to shewing that civilization has travelled, and that hostile invasions have been a principal means of civilizing nations; and with reference to our own country in particular, the author writes;—" From the above slight sketch, it will be abundantly evident that all these advances in the moral and intellectual condition of our countrymen, have not proceeded, as Mr. Combe supposes, from any 'principle of improvement inherent in the race, which time alone

evolved, and brought to maturity,' but that they have been begun, continued, and carried on, from one step in their progress to another, by a successive application of foreign influences, and of stimuli, many of them of the most violent kind, arising in one way or another from external causes." Now, something of what is implied here may be admitted (although during the last twenty years of peace, we have advanced far more rapidly than we have ever done during twenty years of war), and what does it then amount to? that the RACE did contain within itself the elements of improvement. Man is a social being, and can effect little as a solitary individual; but whether A improves B, or B improves A, is of no consequence whatever to the true point at issue. The human race improves itself, whichever individual man or nation most influences the other: and if one part of the race improves another part of the race, then that race must contain within itself the capability both of improving and of being improved; and such capability is just 'a principle of improvement inherent in the race,' which is the very thing Mr. Combe wished to establish.

I have now gone over the Preface of Mr. Scott's book, almost paragraph by paragraph, and have shewn how greatly it distorts and exaggerates Mr. Combe's statements; and that even in the paragraphs which give truth, the whole truth is not shewn. I have also gone, though less closely, over the First Chapter, and have shewn that similar defects characterise that part of the book. I have further shewn that the author so far has utterly failed in his attempts to refute Mr. Combe's views, whether those views be right or wrong in themselves; and that he has equally failed of establishing his own. I have, moreover, exhibited glaring contradictions and inconsistencies between one part of the work and another, and even between passages almost immediately following one the other. And I have also shewn that where his reasoning may appear

conclusive, it is really worthless from being founded on very doubtful or inaccurate premises. Having established such defects in the very outset of the work, I may consider myself to have proved the book to be utterly unfit to give evidence against Mr. Combe; and that it cannot be necessary to go into further examination of its contents. Suffice it to say, that examples of such defects can be doubled, trebled, or quadrupled, if it become necessary. But I rest here; and will conclude by expressing my astonishment—though little apt to be astonished at aught—that any person of Mr. Scott's ability should have put forth such a book; and should have been able to coax himself into a notion. that he could thereby overthrow 'The Constitution of Man,' or cast down its author from his throne of intellectual and moral eminence. If a writer of much ability -and such we cannot deny Mr. Scott to be-is found able to do so little against Mr. Combe's Essay, people will be disposed to think that Mr. Scott has a wee bit exaggerated its "multitude of errors."

THE END.

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Internal Ebidences

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OF

CHRISTIANITY

DEDUCED FROM

PHRENOLOGY.

By JOHN EPPS, M.D.,

Member of the Edinburgh Phrenological Society; Member of the Anthropological Society; Lecturer on Chemistry, Materia Medica, and Botany, at the Westminster Dispensary; President of the Finsbury Discussion Society; Honorary Member of the Liverpool Mechanics Institution, &c., &c.

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NOTICE

TO THE

SECOND EDITION.

TO THE READER.

The first edition of this work was published in Edinburgh, in the year 1827. I was at that time pursuing my medical studies in the University of Edinburgh, and was twenty-one years of age. It was published under the title, "INTERNAL EVIDENCES OF CHRISTIANITY DEDUCED FROM PHRENOLOGY, BY MEDICUS, MEMBER OF THE EDINBURGH PRENOLOGICAL SOCIETY." I need not mention the organs that were active in making me use Medicus instead of my own name.

These particulars regarding myself, I record not from any desire to write about myself, but merely to form a preface to the following remark, that I have not, on reperusing the work, found any reason to alter any essential part of the work, either in reference to the arguments or the illustrations.

This may appear strange to many; it did at first sight to myself. Considering the great variety of views that must pass before the mind in the period of life the most critical of all, at least to a professional man, from twenty-one to thirtyone; considering the great influence of circumstances which must occur during such a period, and considering the expansion of views that a period of nine years must produce in any person who is not cased in prejudice, I thought that in re-perusing the work, I should find some change. I have not; and this appears to me a strong evidence of the clearness of view which Phrenology affords to those who cultivate acquaintance with its details.

I feel no inconsiderable pleasure in presenting this second edition to the public, more particularly as I believe that I was the first who directed Phrenology into the channel of bearing testimony to the truth of Christianity; and, also, because I know that this book has been earnestly sought after by many, and that it will be reprinted in America as soon as the sheets arrive in that country.

Wishing you, reader, the same pleasure in perusing that I had in writing,

I remain,

Your obedient servant,

JOHN EPPS, M.D.

London, February 15, 1836.

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PREFACE.

Wisdom, that will be proved in the course of the following argument to be divine, has asserted, that God made man upright, but he has sought out many inventions. These, from the corruption of his nature, have, in general, been such as to increase the many and oppressive evils connected with the fall; and even those, good in themselves, have, from the same sad perversity, been turned to evil by their misdirection. The gifts of Providence, matters quite independent of man, have been grossly abused; the means of sustenance to his body he has rendered the destroyers of his frame; and those intended for the nourishment of his mind have been so used

as to produce, not a veneration for the Author of his understanding, but an impious disbelief of that Being's existence; or, if not of that, a disregard for His testimony, verifying the truth of another assertion of wisdom, "knowledge puffeth up." In fine, intellectual and bodily strength have been are, and, it is likely, will be, exerted in ways contrary to that relationship in which every man stands to God, as the moral Governor of the universe. So that the same Being had said with truth, "Though I have bound and strengthened their arms, yet do they imagine mischief against me." Hosea vii. 15.

In the midst of this general perversion of what is good, and of defection from Ged, the Author of good, the Christian is bound to come forward, and manfully endeavour, in humble dependence upon his Creator, to direct the gifts of Providence, and the many useful inventions and discoveries of man, into proper channels; thereby bringing back all matters to their source, and making every gift, every invention, to show forth God's glory.

Within the last century, as well as in the present, many are the powerful intellectual energies which have been exercised in delivering science from the thraldom of infidelity. Many have come forward as champions in this good

cause; and many a gauntlet has been thrown down by the heroes of truth, which, as yet, no! sceptic warrior has succeeded in triumphantly raising. Need I instance a Batler, a Watson a Paley, a Sherlock, a Lyttleton, a Wardlaw, a Hale ane; men who have made history, natural philosophy, and every branch of metaphysical science, so far as consistent with truth, speak to the honour and glory of the God of nature antiof grace? And, among the many labourers in the vineyard of late years, in which it may truly be said, "the harvest is plenteous," Dick and Douglas hold pre-eminent places; the former having shown how all true science leads to its Author; the latter, how every species of know! ledge may be made to bear upon the diffusion of the true knowledge of God.

Many of the names mentioned will be recognised as those of men who have exercised their faculties in one of the most important directions, namely, in demonstrating the evidences of Christianity. Butler has shown the folly of disbelieving facts and doctrines, stated in Scripture, on the account that we cannot understand them, by proving that many of the commonest things in nature, perpetually presented to our view, and others constantly recognised by consciousness, are not known, and imperfectly, if at

all, anderstood, even by the wisest. Chalmers has given us a view of the stable foundations on which Christianity, as it regards its external evidences, rests; and, amongst the others, Erskine has opened up a new field of investigation, in the attempt to demonstrate the truth of Christianity by its internal evidences. He has, in his own words, "analyzed the component parts of the Christian scheme of doctrine with reference to its bearings, both on the character of God, and on the character of man;" and this, in order to demonstrate, "that its facts not only present an expressive exhibition of all the moral qualities which can be conceived to reside in the divine mind, but also contain all those objects which have a natural tendency to excite and suggest in the human mind that combination of moral feelings, called moral perfection; and that, as this object is one suited to the character of God, the system having this tendency must beof divine origin."

When reading Erskine, the author of the following argument was induced to conclude, that another illustrative view of the internal evidences of Christianity might be founded upon the constitution of the human mind. The train of thought, leading to this conclusion, was the following: It is with man that religion has to do.

All the rest of animals, as well as all the other parts of creation, show forth, by a kind of necessity, the glory of God; their uses, wonderful contrivances, grandeur, variety, changes, the peculiar adaptations in their constitution to their particular habits, speak a silent language of praise to the Creator. But man is endowed with a principle, concerning the abstract nature of which there has been much useless dispute, but which, instead of going downwards like that of a beast, rises upwards, and finds as its restingplace no other than the Lord God, the Creator of heaven and earth. Man has a mind, and this has been so constituted, that God requires its willing and joyful exercise in offering to Him a rational worship. We find, that when man was first created, this was the case. Adam's happiness in Eden consisted in the enjoyment of God's presence, and his pleasure was found in showing forth his Creator's glory. But this happy scene of things soon changed; man fellhis mind became enmity against God; and, instead of being directed into the channel of showing forth his Maker's glory, ran in the pelluted stream of evil imaginations, and that only, and that continually. But God took pity upon his miserable subject, and in the midst of wrath at the violation of his covenant by his creature,

the Creator remembered mercy, and taught the tebel man the way of obtaining favour. This was gradually unveiled, until the fulness of time came, without God sent his Son, made of a woman, who delivered to his disciples precepts darable for ever, and dictated to his apostles these doctrines, exhortations, and admonitions, all of which are collected in the New Testament, and all the preceding circumstances in the Old; both being comprised in the book called, by way of eminence, "The Bible! The Bible, then, it appears, contains the way by which man can show forth the glory of Glody by performing with acceptance those daties; which he owes to his Maker; and pros vides means by which his mind, from the corraption of his nature, continually misdirected, may be made to run in the channel of obedionce to God's will, its legitimate direction. To effect this grand purpose (for the former is comprised within the latter), it is evident that the Bible must contain certain motives, having such a powerful influence as to lead the mind from one track into another, in which they will keep it, and, in pursuing which, they cause the renewed man to find pleasure. This, we shall discover, is the case. Religion, THEN, 18 A SYSTEM OF MOTIVES, AND THESE ARE.

AND MUST BE, SUCH AS WILL APPROT: THE HUMAN MIND. If, then, we posses a correct knowledge of this mind; if we know its prine ciples, its constituent parts, on which other motives act, we shall be enabled to deduce thence a series of tests probatory of the positions that the Bible is the word of God. How we care enabled to do this, depends upon the followings indisputable conclusion. If the Bible comes from God, the Author of our being, and if religion is a collection of motives acting in a certain way appear the mind, connected with this being, it is evident that these motives must be suited thereton If we find that they, and no others, are suited to produce the effects which Christianity recognizes. we have a right, indeed it is our imperative duty, to infer, that the system containing these is from the Author of our being. If not suited thereto, the contrary inference must be the one arrived at. These conclusions admit of no dispute, for we may reasonably inquire, " He that planteth the ear, shall be not hear? He that formed the eye, shall he not see? He that teacheth man knowledge, shall be not know?" Psalm xciv. 9.

But here a difficulty presents itself—where are we to meet with a correct system of the human mind? Till within these last few years, a search for a true system of the human mind

among the ponderous volumes written upon the subject, was as vain as that of the alchymists to find out the philosopher's stone. Indeed, all the systems of the mind which have appeared, are the results of the endeavours of some men of mighty genius to bend the facts, discovered by observation; to their peculiar pre-conceived notions; and, having taken these results for principles, these individuals have endeavoured to reduce all the varied manifestations of the mind to them, as their first sources. They have seated themselves in the judgment-hall of their own consciousness, and have adopted its decisions as the laws which regulate mental phenomena; forgetting that other minds are not constituted as their own, and trying to blet from the page of memory, that one well-established opposing fact overturns the validity of any universal law. Of late years, however, a system of the human mind has been brought to light, the principles of which are dependent upon observations, whence, by the Beconian system of induction, they have been patiently deduced. Such is the phrenological, at least to those who believe in it, and to such principally these pages are addressed. However, to satisfy the scruples of some who have not studied the evidences on which Phrenology rests. (which indeed, if studied, are sufficient to convince a candid mind), a few remarks will be made in reply to some objections which are frequently brought forward by good-meaning people; both by those who have a great respect for religion, but who have, in some points, a real without knowledge, and those who care little about things which are not recognised by any whom they have been taught to consider "great men."

An objection frequently made by the former class is, that Phrenology is opposed to religion. To this, the argument contained in the following pages is a sufficient reply; and it may, with truth, and the kindest feeling, be affirmed, that the birth-place of this objection is ignorance. But strange to say, some, when told of this application of the science, cried out against it with unbecoming vehemence. These people seem offended when any thing except the Bible testifies to Bible truths. To object to Phrenology on this account, is equally absurd as to object to the works of God, because on the page of nature, as well as on that of revelation, the attribute of goodness is imprinted.

Another objection, made by the latter class, is, "How is it that so many great men oppose Phrenology?" To this it might be replied, that this is no argument against the science; since

every man of strong common sense (a possession, bowever, by Juvenal said to be very rare) must be aware, that the question necessary to be first decided in every inquiry is, Is this truth or untruth? It may be remarked, in addition, that a respect for authority is one of the greatest obstacles to the obtaining of truth. The "ipse dixit" of an ancient sage closed the eyes of observation for ages. This foolish reverence forbids any originality of thought; indeed, few are fond of thinking, and are very happy that others are willing to take the trouble out of their hands. These people take all things upon trust; they obey the dicta of a man great respecting literary honours, with as much deference as the subjects of the Ottoman empire the commands issued by the Caliphate. If they who urge this objection be such, and it is to be feared they are, it is begged of them to deliver themselves from this mental bondage, and be free Britains, not only in respect to their bodies, but also in relation to their minds. The inveteracy of habit must be allowed to have an influence on great as well as on little-minded men. These persons have been long used to one train of thinking. They consequently find it difficult to adopt another; and as the acquisition of the system of mental metaphysics has, it is likely,

cost them much labour, their interest and selfesteem, and a number of other motives, are roused to refuse any aggressor entrance at the gate of their mental territory, inveterate habit being the door-keeper. No wonder, then, that Phrenology, which threatens to overturn the ancient building, reared at first by Aristotle, remodelled by Reid, partially altered again by another, daubed over by another, embellished by Dugald Stewart, and his admiring followers, should be refused admission. In fine, it may be inquired of the scientific men, what did Galileo and other worthies suffer? and, to the Christian, the question may be applied, what was the treatment that the holy and unblamable life, and equally holy and unblamable opinions of the Saviour met with from the enthusiastically zealous Scribes and Pharisees, and from the phi-Josophic Sadducees?

In the following pages, therefore, Phrenology is assumed to be a true system of the human mind; a postulate, which it is believed every candid mind, upon a fair investigation of the evidence, will be ready to allow. Let it be remembered, however, that this is not considered by Phrenologists as a postulate, but a truth, demonstrable by facts numerous as those on which the principles of any other scientific system are built. For the Phrenologist will find no

difficulty in proving that chemistry, botany, natural history, or civil, sciences generally believed in, have not evidences equally numerous and, indisputable, as grounds on which they are established, or considered by their adherents to be so.

These remarks may anticipate an objection which has frequently been made by persons ignorant of these evidences, against the application of Phrenology to matters of history, of government, of literature, and of mind. They think it wrong, that a science, according to them not yet established, should be applied to these subjects. In order to obviate this objection, and to remove the apprehensions of some at the following employment of this science in relation to Christianity, the truth must be stated, that its principles rest upon no other foundation than the solid rock of observation. These have been accumulating for years, and will continue to accumulate till the human mind has for ever ceased its functions; a period when neither Phrenology nor any other human science will any longer be applicable. If, then, we were to delay the application of the principles of Phrenology till the mighty structure be completely reared, we should delay till the end of time; for, till that period, the science will be receiving accessions. Indeed, the applications serve to

build the fabric quicker by enabling its architects to bring supplies from every quarry out of which the human mind has worked materials; and the readiness and the neatness, with which the matters collected help to form the fabric, show that the principles of the science agree with those of nature, and its professors to be skilful master builders. Yet some people would have the Phrenologists delay. These persons, however, do not argue thus with respect to other sciences. Chemistry, the present system is referred to, has been established but a few years. and yet who refrains from applying it? and who objects to the application? No one; indeed, the man would be reckoned a fool who should say to a chemist, "Your science, Sir, is not established; you must not apply it to the illustration of chemical phenomena." The objection, that Phrenology is applied too far and in too many ways, is often made in a very angry spirit, People might as well be angry, that out of twenty-six alphabetical letters, many thousand words are made; or that, from seven notes of the gamut, such a countless number of sounds should be worked. >

Phrenology, as a true system of the human mind, will apply to every exhibition of its antitype, and will be useful in every relation in which the mind is called into exercise. Consider its possesser as a child, Phrenology will lead to the proper means to be made use of in cherishing some and restraining others of the dispositions and faculties. If we view man as a member of a community, this science teaches what talents he has, and how he can best employ them for the common good. And, finally, if we behold man as a creature of God, a knowledge of Phrenology will enable him to examine that historical code which boasts a divine origin; to try whether it deserves this high dignity, by investigating whether its doctrines and precepts are accordant with our nature. This last and most important application is the one taken advantage of in the following pages.

To show the justness of this application, it is worthy of reiteration, that religion is addressed to the mind.* It is evident, then, that if we are in possession of a correct mental system, we have data or grounds from which we can deduce tests, witnessing to the Bible being the word of God, by showing that its doctrines are conformable to the constitution of that mind with which it has to do. This species of analogical proof rests on

^{*} This word is used in the broad phrenological view, as comprehending the desires commonly called the fleth; the sentiments named, in the Bible, the soul; and the intellectual faculties represented in the same book by the word spirit. In this threefold division of the mental faculties, Phrenology agrees with Scripture.

the possibility of inferring the truth of one proposition from its consistency with another, which we know to be true; and the evidence derived from this source is second only to that of disect facts.

By some it may be thought that in this desmonstration too much is given to Phrenology: they may say, you would never have found out this application of the science, without the mind having been illuminated by Scripture truth. The author most readily allows this; and, in so doing, is glad to acknowledge, that the word of God is the best purifier of the mental vision. But it does not follow, because this application would not have been seen without the aid of the light of Scripture, that therefore the application did not exist, any more than that the imperfection of our natural sight does not at all argue against the existence of things which we do not see; for I do not suppose, that many are so ignorantly blind, as to refuse to believe in any thing but what is evident to their own senses. We should, rather than impugn this application, rejoice in it, and value and study constantly the word of God, which alone is capable of enabling us to direct our knowledge to proper objects.

This introduction may be concluded by an extract from a work published in the seventeenth century:—"The two volumes of nature and

grace are so divinely perfect; contain so much true beauty and solid worth, that, in order to be thoroughly admired, they can want nothing more than to be well understood. And, moreover, they correspond so strictly, and tally so exactly in numberless respects, and are so peculiarly fitted to illustrate, unfold, and enforce each other, that nothing can redound more to the credit and esteem of either, than a matter contemplation of both. Doubtless the more intimately men are acquainted with them, the greater excellencies they will discover; and the severest search, if honestly made, must end in deriving both from the same original."

The author cannot let this apportunity passwithout testifying his gratitude to an anatomical lecturer, Mr. Sleigh, of London, for having directed his attention to the discoveries of Gall and Spursheim; and also to Mz. Clembe, whose labours, in the cause of Phrenology, will over entitle him to respect, and will obtain him in future days a place, and that no mean one, among the benefactors of mankind.

Edinburgh, 1827.

^{*} Balguy's Tracts, Moral and Theological, page xxix, Preface.

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WHEN my thoughts were first turned to the subject discussed in these pages, so many and so powerful seemed the obstacles against their successful presecution, that, had not an ardene desire to direct any additional knowledge to the development of the most important truths given its potent assistance, the following attempt would never have been made. Indeed many, and they men of sound sense and extensive reading, asserted that every thing that could be said upon the evidences of Christianity had already been offered to the world, and enumerated a train of so many illustrious spirits, who had directed the powerful energies of their minds to this momentous question, that it seemed

almost presumption to persevere. Still, however, the conviction of being in possession of a fountain of knowledge, which has been, till of late years, undiscovered; and the certainty; that from it flows a purer stream than that which has formed the mighty, but Stygian, river of mental metaphysics; and the hope that, by seizing the stream in its course, it might be directed into the fields of truth, encouraged me to proceed.

It is hoped, from the observations contained in the Preface, that the nature of the argument will be perceived. But as it is, naturally enough, a common case, that an author, like a painter, observes peculiarities, and sees farther and more in his productions, than the reader or the spectator beholds, it may be proper to make some additional remarks, proving, that the argument herein brought forward, has something new in it, and is not, as some may be apt to imagine, a substitution of new expressions for new ideas. In order to exhibit its novelture it will be necessary to undertake the unpleasant, though useful, duty of showing the natureand, in doing so, the defects-of former arguments (for they all seem more or less defective), and then to point out the nature of the following. The ungracious nature of the task of dwelling upon the misconceptions of great men, must be evident to all: its performance, however, is a duty rendered imperative by their very celebrity.

The arguments of those who have written upon the INTERNAL EVIDENCES OF CHRISTIANITY, may be reduced under three classes. The first consists of those who have argued upon the reasonableness of the doctrines, or the accordance between the nature of the Christian religion and the character of the Supreme. The divine character, it will be seen, is the touchstone in this species of argument. But to make this serve such a purpose is illogical, and consequently unsound. We have no knowledge of the character of God, but from his works and his word.

Our information upon this head from his works is very limited; indeed, so much so, that we cannot be justified in making our experience thereupon, a standard of truth. Chalmers's reasoning on this subject is conclusive: "To assign," says he, "the character of the divine administration from the little that offers itself to the notice of our own personal observation, would be far more absurd than to infer the history and character of the kingdom, from the history and character of our own family." Any

easoning, therefore, as to the truth of Christianity, from the accordance between its doctrines and the character of God, as made known by his works, is* inconclusive. Our knowledge from the word of Gud is far more extensive. Indeed. therein we are taught the real character of the Deity therein he who fills all is made known: a view of his immensurable attributes, under the veil of some interesting and important facts is presented. This knowledge, thus obtained is the proper standard to use in examining the divine character. But this is that which Christianity makes to appear; and, in proving that the general doctrines of the Christian system cornespond with those that relate to the Being held forth therein as the object of adoration, all that in demonstrated is, that a consistency exists throughout. But this, though pleasant to behold and, to the believer, one confirmatory evidence of the truth of his system, the object of belief, is not sufficient to authorize any one to believe the Bible to be indeed the word of God. The harmony proves that truth is the general feature of the

^{*} It is not said, that it was inconclusive, but that it is.
To Adam, whose vision was not biassed by the preponderance of his lower feelings, the creation was a continual preacher of the Creator; and now that the light of Reveation has dawned, it has become again an instructor.

work; but not that the God, who is Truth, is its author. In Euclid's elements there is throughout a consistency, but who considers this as proving that of this work Euclid was the author? The insufficiency of this argument will be rendered still more apparent, when it is remembered that this consistency is not perfect, at least to most minds; for, with some matters revealed, all that can be said is, to use Paul's language, and to impaire, "Who art thou that repliest against God? Shall the thing formed say to Him who formed it, Why hast thou made me thus?"

The next class of reasoners are those who have argued in favour of Christianity, from its doctrines being superior both in morality and in faith to those of any existent system, and from its precepts being opposed to the predominant desires of the generality of men. Therefore, it has been concluded by many, that Christianity could not have been the work of men, or of devils, but necessarily of God. This conclusion depends upon a want of knowledge; for, in many works written by heathen philosophers,* we find very proper practices recommended, and many duties enjoined, requiring for their performance the

^{*} See Apologia Dei; a valuable work, as containing records of the opinions of the ancients.

sacrifice of feelings which men hold dear. Wicked men have often inculcated highly moral precepts. Voltaire, in his Philosophical Dictionary, has some excellent laudatory and illustrative remarks on self-denial, and other commonly called virtues. The morality of Christianity, it is true, is distinguished by the principle to which in this system it owes its fise, mannely, the love of God. The arguments of this class, can be called no more than thetrations of Christianity; as such, they have been useful in exhibiting the grandour and elevation of the Christian system, even as a system of philosophy; but do not prove that the same is a revelation from God, because we are not certain, upon like reasoning, but some system may yet come forward superior to it. Before, then this argument can be convincing, it will be necessary for us to possess the standard of perfection, and to find that, upon comparing Christianity with it, they agree!

The third class of arguments consists of these drawn from the honesty, manifested by their sufferings, of the persons who bore testimony to the truths stated in the Bible, and from the successful elevation of Christianity above all the numerous, varied, and powerful attempts to overthrow it. The withstanding of this opposition,

it is said, is sufficient to demonstrate, that the Christian system has God for its author. But this way of reasoning is not conclusive. Many persons, moreover, have devoted their lives in the defence of what are now believed not only false, but absurdly childish religious: and it is well known, that the best way to perpetuate a name, is to persecute its possessor. Indeed, a philosopher, who wished his opinions to be known, sried, "Persecute me, persecute me." Persecuted men band together, stir up one another, and often unjustly identify their cause with that of God, and, by so doing, acquire an intrepidity, superior to every difficulty. And, allowing, that the bearing of persecution for conscience' sake shows the honesty of the belief of the persecuted, it is no proof but that the thing believed is, not a lie. For, though what, Gamaliel said to the Jewish sanhedrim respecting the infliction of punishment on the first preachers of Christianity, namely, "If this counsel, or this work be of men, it will come to nought; but if it be of God, ye cannot overthrow it" (Acts v. 38, 39), is true, yet it is a species of evidence that is merely subsidiary, and only that when ages are past. Such reasoning would establish in the mind of the Papist, the Romish church as the right church; in the opinion of the Turk, the

the Mahommedan. Indeed, this logic is one, which laziness has begotten upon feat. Instead of investigating the evident, and, to Gamaffel, sensibly evident testimonies to the divine mission of the apostles, and to the heavenly nature of the doctrines taught by them, he, affaid of examining matters which came so near home, contented himself in this doctrine of expediency. And let those who argue this on any truth beware, lest, by this lukewarmness, they depart from the way of thut, and tease to do good to men.

These three classes comprise almost all the arguments that have been written upon the internal evidences of Christianity; and, though not conclusive, have not been without use. They have been the means of removing much of the rubbish that prevented some of the strong and well-defended buttresses of the Christian's citadel being seen. They have shown the bulwarks of Zion, and have pointed out thy beauties, O Jerusalem!

Two arguments, however, remain to be noticed; these not being comprised within the three above. Reference is made to those of Butler and Erskine.

Some had disputed the truth of Revelation, upon the ground that it contains many things

which are opposed to our reason, and to the light afforded us by natural religion. To this objection Butler replied, by showing, that, if this argument was sufficient to gverturn the truth of revelation, it was equally so in destroying the truth of what we observe in nature. For, in the natural world, we see and believe in many things which we do not understand, and which we cannot reconcile with our notions derived from any natural source. But, if our belief be refused, unless our understandings perceive the nature of all things, we must shut our eyes, we must deny the most evident, yea sensibly revident truths. Hitherto the argument of Butler is good. As overturning the objection, it is unapswerable; but the positive application which some have made of it, in attempting to establish Christianity, is not so good. It can do only as a negative argument.

For that man wanders wide, and in a latitude not in Butler's measurement, when, from the similarity between nature and revelation, that difficulties exist in each, he argues that, therefore, the God of nature and the God of revelation are the same. There is more of neatness than of conclusiveness in this way of reasoning; a similar kind of logic would demonstrate, that, because two things agree in one respect, they shall coincide altogether.

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Erskine has, however, struck out a new read. The character and condition of MAN hold preeminent places in his argument. The character of God, namely, that recognised by natural retigion, has its place. He endeavours to show, that the doctrinal facts contained in the Bible me such as must necessarily arise from the divine character; and that the nature of these facts, in relation to man, is such, that the effects, which are said in the Christian system will be produced by their exhibition and reception, are such as, on the known principles of human nature, must be: thence concluding, that Christianity is a revelation from God. To use, however, his own words--" I mean to show, that there is an intelligible and necessary connexion between the doctrinal facts of revelation and the character of God (as deduced from natural religion), in the same way as there is an intelligible and necessary connexion between the character of a man and his most characteristic actions; and farther, that the belief of these doctrinal facts has an intelligible and necessary tendency to produce the Christian character, in the same way that the belief of danger has an intelligible and necessary tendency to produce fear." This method of reasoning, though, as far as I have been able to learn, never objected to, is incon-

clusive on three grounds. I state this opinion with all humility; but truth does not admit of a compromise, even among friends warring in the same cause. It is liable to objection, first, from the assumption of the character of God as recognised by natural religionists; second, from certain known principles of human nature being taken for granted; and third from the condition in which human nature is, and to which the motives contained in the facts of Christianity are suitedunot being explained or proved. To comsider these grounds individually may be beneficial and just; and, therefore, with respect to the first, it may be observed, that until that which is valled natural religion is proved to present a correct standard of the character of God, it cannot be consistently used in demonstrating that the doctrinal facts of scripture are of divine origin. But this is the method of demonstrating the divine original of scripture by Erskine, as may be seen by reading over the first portion of the recorded extract. The uncertainty of the dicta of natural religion must be evident to every one who has examined his own mind, and has observed how others! thoughts have become so incorporated in his mental exercises, that, when they appear, he takes them for his own. The Deists of modern days have, it is true, brought

forward a more consistent system than these, their fellows of the ages before the Christian esa. 1. But to what is this superiority referrible? TEAT MOST THAN REVEALED RELIGION HAS BEEN DRECRUCKATED INTO THE MINDS OF THE DEISTS MY MARLY EDUCATION, AND THENCE BIAGORD, THEY HAVE DEVISED WHICH ALL PHE REAL BEAUTIES ARE BORnowed from Christianity? And in making the dicta of matural religion the means of deciding upon the divine origin of the doctrinal facts of the Christian system, we fall into the error of making the experience of those whom every Christian must allow are enemies of revealed truth the judge, before whom the character and the proceedings of the Deity are arraigned. If natural religion was demonstrated to be true in all its decisions respecting the character of God, this might be permitted, but not till then. I am aware it may be said, that man was created in God's image; and that, by giving to God all the moral traits in man in an infinite degree (the way of natural religionists), we cannot err. But this way of reasoning is fallacious; because it is only from revelation that we learn, that man was created in his Maker's image: and the strength of this species of argument depends upon what, to an unbeliever, is an assumption.

The second ground on which Erskine's angument must be inconclusive to the infidel is, that certain features of human character are: taken as known principles of human nature. Many may allow that the principles of Erskine are the fixed ones of the nature of man, but there are others that will not; and before the argument deduced from such principles is valid, these must be demonstrated to be the immutable standards of human character. If he had established the principles of human nature upon a foundation as firm as that on which the laws of mechanics are fixed, his reasoning from them would be fair. This we have a right to expect, for Erskine introduces his argument by a beautiful illustration. He fancies a traveller returned from China. where, among the many wonders seen, it is supposed one was a steam-engine. He tells his countrymen, the Syracusans. The stupid believe all; the judicious doubt; but Archimedes, on hearing the description of the boiler, the pipes, valves, and of the other parts, acknowledges the truth of the narration, although the narrator may not be trust-worthy; and why? Because the effects stated agree with the known principles of mechanics. Thence it follows, that, for Erskine's argument to hold good, it is necessary that the principles of man's nature should be demonstruted; because the mere decisions of experience cannot be convincing, until allocation periences decide similarly.

The third defect in Erskine's argument is, that, in it, man is assumed to be in a certain conchition. Every one must allow that much evil is in the world, and most will agree in referring its origin to the fall. But the motives of Christimity are addressed to our nature, as affected in a certain way by the fall; and the force and the suitableness of the doctrinal facts can be seen to the full extent only when a conviction of being in this condition is driven home upon the mind by a demonstration of its truth. It is true, Christianity says that we are in this condition; but the infidel does not believe: and, before he can be convinced of the suitableness of the doctrinal facts of the Christian system to produce certain effects, he must have it demonstrated that such is the condition of human nature; for it must be allowed, that what is very suitable to a person in one state, may be very unsuitable to him in another.

Having thus pointed out the nature of former arguments,* it remains that the one pursued in the following pages should be brought forward.

^{*} One argument has not been noticed, and this is, perhaps, the best of all. It is Haldane's; and is well worthy

Previous, however, to doing this, it seems to the writer a bounden duty to bear testimony to the beauties of Erskine's publication; and to add, that though it is not a conclusive argument, it affords the most striking illustrations of the genuine influence of Christian principles. Every Christian must be pleased with the work, and must be happy to see the extensive circulation which it has had; and its writer, it must be acknow. ledged, has made a diligent use of every means he had in his power. And though the deficiencies in the argument already stated, are supplied in the following pages, the author takes no credit to himself; the difference being, that he happens to be in possession of means which Mr. Erskine did not possess; or, if possessing, did not use.

PHRENOLOGY, as a true system of the human mind, supplies all these defects. It frees its possessor from the need of any appeal, for the sake of argument, either to natural or revealed religion, for the character of God; puts him in possession of the known, the fixed principles of human nature; opens up to him the influence of motives on that nature;

of perusal. It views Christianity as regarding the salvation of man. Some others, of which the author is not aware, may have been passed by.

enables him to prove, both that man is in the condition in which he is said to be in Scripture, and to overrule many unanswerable objections.

Before stating the argument, it may be proper to hint at an objection often made by those who have not fully studied the discoveries which the science of Phrenology has made. It is this, that experience is equally sufficient with the evidence of phrenological demonstration. This is saving that the stream is equally pure as the fountain. Experience is the stream flowing from the primitive faculties, demonstrated by Phrenology. Experience consisting of deductions of the mind from facts observed; which facts themselves have arisen from sources, which were anterior to the facts themselves. It is true, we can say the stream is water, but we cannot be certain that it arises from a fountain. It may be accumulated rain. The metaphysicians say that it is: they refer the differences, which Phrenology demonstrates to arise from primitive faculties, to the influence of circumstances; and refuse to acknowledge that they flow from individual fountains. Thus we see the uncertainty of experience, from the possibility of putting different explanations upon it; and the certainty of phrenological demonstration, by its not permitting any difference of explanation. Indeed,

metaphysicians are, in truth, Owenites, although they will not allow it.

But to the argument, all religions are similar in the three following respects: in having some superior being or beings for their object; the favour of the same as their end; and the means of obtainment as their subject. These remarks apply to Christianity: and, in illustrating them in the following dissertation, it will be proved that this religion alone can boast a divine original, from the following circumstances: THAT NO GOD BUT THAT OF CHRISTIANITY CAN BE APPROVED OF BY MAN ON ACCOUNT OF HIS MENTAL CONSTITUTION: but man having, in every case, approved of others beside the true God, some change has happened in human NATURE: That this change is EVIL, and that man is necessarily evil: That the MEANS for obtaining God's favour ARE SUITED TO man in SUCH and in NO OTHER condition: That the obtaining of this favour is connected with certain CHANGES. which the MEANS are EFFICACIOUS IN PRODUC-ING: That the means for PRESERVING the favour of God are such as, according to the present condition of human nature, are EFFICIENTLY SUITED for effecting that great object: Finally, concluding, that as Christianity corresponds thus, in every respect, with the fixed constitution of our natures, it must be the work of the Author of our being. Such are the principal matters discussed in the present work; and it now remains that we pursue them.

The similarity between all religions has been stated. And as the division is natural between a being and the circumstances in connexion, the argument will embrace two points: First, the general character of the God of Christianity; and, second, His particular character seen in the means to be made use of by His creatures to gain and preserve His favour.

INTERNAL EVIDENCES

of

CHRISTIANITY,

DEDUCED FROM

PHRENOLOGY.

PART I.

THE argument to be illustrated is, THAT THE GENERAL CHARACTER OF GOD, AS REVEALED BY CHRISTIANITY, IS CONFORMABLE TO THE PRINCIPLES OF OUR NATURE, AS DEMONSTRATED BY PHRENOLOGY. In establishing this, four propositions will be offered for consideration: first, that man is so constituted as to be constrained to worship some being; second, that he is endowed with certain faculties, enabling him to decide on what ought to be the object wor-

shipped; third, that this object must be such as these faculties, unbiassed, approve of; and, fourth, that the God of Christianity is the only such object.

The first proposition that requires demonstration is, That man is so constituted as to be constrained to worship some being.

Such a proposition may, to some minds, be so self-evident as to need no proof. Indeed, one writer says, that "it is morally fit that man should reverence his Maker, is a proposition selfevident to all that rightly understand the terms." In proof, it has been urged, that man is called a religious animal. That he should have received such a distinguishing appellation without some adequate cause seems unreasonable. Indeed. this characteristic of human nature is very evident, even upon a superficial observation; and so strong and so general has been the impression of a superintending power, and of our duty to bow in homage before the same, that the most civilized of nations banished Pythagoras, one of their philosophers, for denying the existence of a God, and put another, called by the Delphie oracle the wisest of men, to death, for maintaining the existence of a being thought by his countrymen to be in opposition to their superintending powers. The lifting up the hands and

eyes towards heaven, the natural language of distress, seems to bear testimony to the general impression, both of the existence of a Deity, and of the duty of bowing before him. And, though, in health and prosperity, many among the heathens, and, in modern times, still many more, have pretended to doubt the existence of God, and consequently their duty to worship him; yet, in the days of adversity and sickness, we find, as Seneca remarks, that these scepties show themselves to be most fearful of this Being, who, according to them, when in health, is the fancy of men. And few will doubt what Cicero says, there was never a nation so savage or people so barbarous but always confessed the existence of a God." The objects of worship may be, not God, but devils, or sometimes even men; and the means for obtaining the favour of the being worshipped may be not beneficent, but cruel; yet, the impressions that there is such a being, and that this, as such, should be worshipped, seem to be general. And it is a curious fact, that the very name the Greeks gave to the Deity, Ococ, theos, signifies fear. If language consists of signs of things, this affords most striking illustration and evidence of the opinions of the Greeks upon this subject.

However evident these conclusions may seem,

and however fairly deduced from facts, some have disputed them. So evident, indeed, are they thought by one writer, that he attests "it would be as absurd to demand a reason why man should reverence his Maker, as to ask why a whole is greater than its part."* But this is no argument; for it should always be remembered, that, before we can be convinced of the fitness of any thing, it must be evident to ourselves; it being clear to others, unless they be infallible (an attribute which a real Protestant will not be willing to allow to any man), is no reason why it should appear fit to us. Indeed, two objections have been urged against these conclusions, thus deduced: the first is, that there is no cause for a belief in a superior existence; and second, supposing that a superior being exists, there is no reason why he should be worshipped. These objections must be refuted; and, in their refutation, an opportunity will be afforded to show the importance of Phrenology in giving the force of demonstration to conclusions deduced from otherwise disputable observations. The first objection set the master-genius of Paley to work, and the result of his labours was his valuable and interesting publication, "Natural Theology."

^{*} See Synge's Method, p. 11.

main proposition; which he illustrates by a great variety of examples is, that wherever there is design, there must be a designer. In the world, innumerable instances of design are evident, and therefore, according to his proposition, a contriver must have existed; and as, in the carrying on of the varying circumstances of this and other worlds, there must be a presiding mind, that contriver still exists. This argument, so simple; and apparently so free from objection, was nullified by an opposing statement. The sceptic did not pretend to deny the examples of design, but disputed the conclusion that these should lead to a designer. Paley illustrates his argument by supposing a plain, over which a person travelling picks up a watch. The archdeacon then analyses the thoughts that would pass through the man's mind. But here he fell into an error. which almost all metaphysicians have been in. the habit of committing: he made his own consciousness that of the man, and makes the traveller think as one would who knew the uses of the watch. To Paley it would exhibit the idea of a workman; but why? Because he knew that workmen made such things. Here, then, his conviction of design depended upon his knowledge.* But let a savage happen to pick up the

^{*} The same opinion respecting Paley's reasoning is given

.watch, what would be his conclusions? said the infidels: He would, it is likely, fancy it was some animal, having pacaliar powers, and would be attenished: * he would not think of a designer. unless he had seen such a thing made by some one....But any other animal, hesides mun, would hausathought in a similar way! The animal erection behold the same objects; they look around, admire, and wonder; but do not infer any thing: respecting a supreme existence. A cat as well as man, sees itself in a glass; but does the cat imagine that man made the glass. The force of this objection is more apparent when we reflect on what we ourselves would think had we never seen a watchi before want knew nothing about time. This philosophy, though se humbling, has been advocated; it pats man on a level with the brute creation, a paradexical exhibition of philosophical pride. We

by Mr. Rennell, Christian Advocate in the University of Edinburgh, in his Remarks on Scepticism.

* It is curious that the above was written without any knowledge that such would turn out to be a fact; but an intelligent lady to whom the first edition this book was lent for perusal, appended a note, that a savage to whom a watch was presented, did actually regard it as an animal, and feared to handle it lest it might injure him:—See Lander's Expedition to the Niger.

might almost doubt whether men ever held such epinions, were we not aware that one would be philosopher of the present day glerisatin the ddea of being, post mortem; a cabbage. Those; who ergued for the existence of a superintending power, were so delighted at the apportunity of attack afforded them by this lowering of tmare to the rank of the brute creation, that they corner to the charge with the word "reason," without having properly considered in what reason consists. The possession of reason was their ground. on which it was maintained that man and no other animals could discover the existence of the Supreme, and, discovering this; could be bound to worship Him. Prejudice, it is true, was on .their side: but the imfidel returned their attack with a vigeur and a skill, to the effects of which they had laid themselves open by the intemperance of their charge. He demanded the evidence that man is in the possession of reason; and observed, if we say reason consists in foresight, look at the ant, that collects with so much diligence her food for the winter: if reason be exhibited in suiting ourselves to our circumstances, behold the beaver, building its twofloored house; if in being grateful for favours, consider the dog, the faithful remembrancer of kindness; if in the approval of what is right,

read the numerous instances wherein animals act justly. A long dispute was now entered into respecting the nature of reason; and attempts were made to point out differences between this and instinct. A principal distinction was the following: - That instincts ever lead to the same results, and do not admit of improve-But against this so many facts were ment. urged, that the objection cannot be considered answered with such clearness as to justify an infidel in bowing before the judgment of his opponents.* It was asserted, that reason is a ray of "the light that enlightens every man who comes into the world; a beam of the eternal Logos, the "Sun of Righteousness." Many may allow the truth of this beautiful remark: but the infidel observes. "This is assertion. where is the proof?"

This brief view of sceptic opinions has been given with the intent of showing how little certainty the labours of metaphysicians have conferred upon these important subjects; and I

^{*} Indeed, the difficulties attendant upon a delineation of the difference between reason and instinct, will be fully seen by reading the valuable work, entitled "Paxton's Hustrations of Scripture;" also an Essay on Instinct, read before the Royal Society of Edinburgh; also Smellie's Natural History.

think, if phrenology sets these questions for ever at rest, we cannot look upon the science but with a smile of approbation.

How then can the question be answered? how is it to be proved that man possesses reason? In order to give a proper reply, it must be established that man has certain facul-TIES, NOT IN THE POSSESSION OF OTHER ANI-MALS, THE EXERCISE OF WHICH CONSTITUTES REASON. Does phrenology afford this means of proof? It does. This science demonstrates, by observation and by dissection, that man is in possession of several faculties not possessed by beasts; and, among these, two in particular, the exercise of which constitutes reason. These are Causality, which traces between cause and effect, and impresses us with an irresistible conviction, that every phenomenon, or change in nature, is caused by something; and Comparison, which gives the power of perceiving resemblances, similitudes, and analogies. These two faculties, perceiving the wisdom, harmony, power, and beautiful connexion in the works of creation, infer that a supreme creating and directing mind exists. This they do from the very necessity of their constitution.*

^{*} For a fuller illustration of these observations, eco Combe's System of Phrenelogy, article Causality; see also

The establishment of these faculties takes away one chief support of the second objection, that, supposing a superior being exists, there is no reason why man should worship him. sceptic maintained that, though he received many benefits from the works of creation, this is no reason why he should bow before the Creator. "For," said he, "does not the insect enfoy the benefits of God's creation, when it revels in the sun-beam? Does not the hon, wandering through the desert, and stalking along in the dignity of his greatness, receive his food from the hand of Heaven? Does not the Creator supply the rivers for the fish, and does He not feed the fowls of every kind? Why should-I, any more than these, who enjoy the benefits of creation, bow before the Creator? And besides. if I look over the earth, I behold much misery. It is true, the earth is watered, and the sun rises. The face of nature is beautiful; but, sad con-I am obliged to obtain my bread by the sweat of my brow; my life is beset with toils which cannot be avoided. Am I to worship a Being who has permitted such misery?" reply to the former observations, it was alleged,

pages 141, 142, 143, Phren. Jour., No. 1; for a fuller exposition of these principles and facts, see also page 145, note, No. 1., Phrenological Journal.

that man possesses reason; an allegation demonstrated by phrenology. To the latter, it was urged, happiness is the rule, but misery the exception. To this the sceptic replied by a passage from the Bible, "Man is born to trouble as the sparks fly upwards;" and added, even allowing that our reason may demonstrate the existence of God, it does not therefore follow that he should be worshipped. "My reason says, He is above all glory and praise. I am the clay in his hands, and his glory is exhibited in my constitution." And besides, the simple belief of an existence does not imply that that existence is to be worshipped; for "the understanding only perceives facts and draws inferences, but does not feel emotions, and adoration is an emotion." Metaphysicians argue to the contrary, but they have been misguided by mistaking the decision of another faculty of the human mind for that of those constituting reason. And that simple adoration is not the effect of reason, but of some other faculty equally strong, is proved by the fact, that the deities of the savages are often blocks of wood and stone. It surely will not be said, that a logical train of deductions gave birth to this species of worship; a conclusion to which we must come, if we allow that the impression of the duty of worshipping

a superier Reing depends upon the design, harmony, and order, in the works of orestion, diecoverable by reason. Is it a conclusion of reason that gives rise to idel worship? To what then are all the facts connected, with adoration referrible? "To the influence of education," says the sceptle; " and the differences in the elevation of the object worshipped suise from the relative cultivation of the minds of the worshippera and the beginning of worship of every kind is ascribable to designing priests." This ebjection is involidated by the nature of the firsts for how could the priests have induced such a state of things, unless something exists in the mind of man, leading him to worship; and why should the priests have chosen this method of bringing their fellow-men over to their purposes, unless they had been convinced that, in man, a powerful tendency to worship some Being exists? However, the infidel strenuously maintains his explanation of the facts, which the considers as exhibitive of the influence of education, Indeed, conviction has not been driven bome upon this point; begause, though it is fair to argue, as has already been done, that where light exists, there must be a luminary, so there cannot be any exhibitions of a religious principle, unless the principle is in existence; yet,

until we can either show that the inddel explanation is insufficient to account for the phenomena, or bring positive evidence to the existence of the principle, we cannot convince the gain? sayer. Those, who have been used to reasoning; will know the difficulty connected with proving to any one the insufficiency of his explanations and, although in this case, a person, void of education, who has had no communitation, so far as is known, with human beings, a man of the woods, in fact, " is brought, having missisfested in his conduct the influence of a principle leading him to bow before God, the sceptic objects, and fairly too, "We are unacquainted with all the circumstances of this person's history. In his early life he may have seen seme human being lift his hands and eyes towards heaven, and being imitative in his nature. followed the example, and became a worshipper of a being, of whom he is altogether ignorant." On this ground the infidel takes his stand, and defies the utmost efforts of his opponent. For though it has been (and with truth), asserted; that "a kind of devotion inducing man to wor-

^{*} Since the publication of the first edition, Casper Hauser has been brought before the public, and the reader is requested to read the account published of him in the Penny Magazine: also a later account by Lord Stanhope.

ship him, being the Creator and Preserver of men, and of all things else, and the provident Father of all, is planted and inseparably fixed in the hearts of all men;" yet, to prove this, if we can appeal to nothing but exhibitions, which, the infidel asserts, arise from circumstances, we can never be successful. We must demonstrate the principle.

· Such, then, is the condition in which we are left by the observation of facts. Phyenology stops not here, but helps us out of our difficulty. by demonstrating, by positive and incontrovertible evidence, the existence in man, and in man only, of a faculty of the mond, the source, the fountain, of all these exhibitions of worship. This faculty is named Veneration, from the emotions to which it gives rise: Its existence (for the evidence is convincing), affords an allpowerful argument; in fact, the only argument that can be used, to prove to a man, who loves his infidel explanation of the exhibitions of this principle, the inaccuracy of his opinions. And having proved its existence, it may be asked as an illustrative evidence, whether a human being, not idiotic, was ever known, who did not, in any respect, exhibit its influence in adoring some one being or other?

In answering these objections, the proposition

started with has been proved. It has been demonstrated, that man, from his very constitution, is bound to worship some being. And when, in addition, we consider that man, and man only, has the faculty of Veneration, we see a distinction between him and the lower animals; and beheld the cause why the soul of man goeth upwards, while that of a beast proceedeth downwards. The examination of this proposition, I cannot conclude better, than by the introduction of a passage, elegant in style, and beautiful in sentiment. "Dr. Gall observes, "that the existence of the organ (Veneration), is an indirect proof of the existence of Gop. Destauctiveness is implanted in the mind, and animals exist around us to be killed for our nourishment. Adhesiveness and Philoprogenitiveness are given, and friends and children are provided as objects on whom they may be exercised. Benevolence is conferred on us, and the poor and unhappy, on whom it may shed its soft influence, are every where present with us. In like manner, the instinctive tendency to worship is implanted in the mind; and conformably to these analogies of nature, we are entitled to infer that a God exists whom we may adore." Combe's System, p. 147.

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"Enn speakty of Veneration produces mere emotion. It is the source of the tendency to worship a superior power, but does not guide its pussessor in forming any ideas correct, or incorrect, of the object worshipped. It is, therefore, hatteral to expect; that the Being who made tunns and his endowed him with a faculty leading to adoration, thus also provided his creature with faculties, which, if properly directed, will lead to the knowledge of the character fitted to be the object on whom this faculty may be rightly exercised. Indeed, without such an endowment. man could not discover in this matter between good and evil, and would have been left in the chaos of objects, without a test to discover the real and proper one; he would be in the wide ocean of his imagination as a mariner without his compass on the mighty Pacific.

These observations lead to the second proposition in establishing the argument taken from the general character of God, that Man is the dowed with certain faculties, enablined him to decide on what ought to be the object worshipped.

Phrenology demonstrates the existence of certain faculties; and it is phrenology only that does. Metaphysicians have wandered far from

this idea. Common-sense people have asserted their existence under the name of "dispositions," and in this, as well as in many other, points, their sentiments approach phrenelogical truth .. Common-sense and Phrenology altreys agreed but there is, in general, little accordance between this product of observant minds and the mental metaphysics of the ancient school. Mental metaphysics are foolishly abstract; their believers tell us what is going on in the temple of their conscioueness, but not in the large theatre of the world. Phrenology studies nature as it is, and teaches us that we have the faculties of Causality and Comparison, the offices of which have been explained; and also that we are in possession of Conscientionsness, which gives birth to the sense of right and wrong, and produces the feeling of moral duty and obligation; of Hope. producing the tendency, to believe in the pessibility of what the other faculties desire, and to look forward into futurity; of Benevolence, the name of which explains its power; of Firmness, of Cautiousness, and of others. Phrenology proves in addition, that these faculties harmonize together, so that the intellect cannot, except when bisssed by the desires, or misled by ignorange, approve of any thing opposed to the dietates of the moral sentiments. These faculties decide always in a similar way; their language in perpetually the same, although differing in power. This anticipates the objection, that the decisions of these faculties, when small, are different from those resulting from them, when large. Persons, reasoning thus, forget that a difference in degree is not a difference in kind. A drop of rain is water as much as is the ocean. Benevolence must be benevolent; Conscientionsness must be just; Causality must investigate; Comparison must compare; Cautiousness must excite caution, whether small or large. The voice may be feeble and faint, but it will never vary.

Man has been endowed with these faculties that they may serve for his guidance. His Hope aspires for some object on which to rest; his Cautiousness bids him beware of resting on a sandy foundation; his Causality and Comparison dictate that such are all things here below; his Benevolence makes his Hope sigh for an object of benevolence; and his Conscientiousness for one who is just.

In order that the importance of these faculties may be more fully seen, it may be farther remarked, that the faculty of Veneration, unguided by them, may urge its possessor to "worship the genius of the storm, the sun, as the

source of light, heat, and vegetable life;" or, if more debased in intellect, he may bow before stocks and stones. It was the faculty of Veneration, not under the presiding influence of the other faculties, and misguided by the vain and proud imaginations of sceptical philosophy, that gave birth to the first verse of Pope's Universal Prayer, the sentiments of which are not less impious, according to the literal meaning, than the versification is pretty. Veneration is blind; the unbiased faculties are its eves: and by them, the way in which the former should exercise itself, is found out. The object of these remarks is to impress on the mind the important truth, that Veneration, unguided by the intellectual faculties and moral sentiments, must lead its possessor into the deep night of superstition, affording to designing priests an opportunity to way-lay and to strip the traveller, not only of his raiment, but of his mental freedom—things which all history declares they have ever done.

The existence of these faculties having been demonstrated by Phrenology, and the nature of their operation, as connected with the present subject, having been thus briefly stated, the third proposition comes into view, namely, THAT THE OBJECT WORSHIPPED MUST BE SUCH AS

where recultures unbrassed approve of. With the view of finding out this object, the principal heather deities, first, of the commonalty, there of the philosophers, will pass under review; and, as they march on, their features will be exampled through the scrutinizing eye of these faculties.

Dae of the principal features of Paganism-(for under this term, Grecian and Roman, as well as Egyptian and Persian idolatries must be classed, in spite of the Gibbonian definition* of the first, the elegant mythology of the Greeks J, is a PLUBALITE of deities. Indeed, polytheism is the leading characteristic of heathen devotion. "In number, titles, and attributes, the objects of aderation may, indeed, occasionally differ; but a multiplicity of deities still constitutes the general creed of Paganism, and a dereliction of the pure worship of the Unity is equally chargeable upon the refinements of Europe and Asia the degraded worship of the western hemisphere. and the base superstition of Africa. The wisdom of Egypt, the learning of Greece, the masculine energy of Rome, were alike unable to

^{* &}quot;Gibbon, though intellectual by nature, and cultivated by study; though brilliant in the crudition of research, unrivalled, too, in splendour and felicity of diction, his

preserve them from the universal contagion." It becomes, thence, a matter of inquiry, Is this predominating feature of the ancient idulatites in accordance with the decision of our mental' faculties? Veneration, it is true, would as wiklingly, perhaps, have many as few objects of adoration; but what will Causality and Comparison decide upon this matter? Their decision is the following: these numerous deities cannot all be equal: they could not have called themselves into existence (supposing them to be existences), but must have had some one who is their original, the source whence they derived being. This must be superior to the rest, and ought, therefore, to be the object of worship; and, unless authority is given to recognise the worship of other beings, his inferiors, Conscientiousness and Cautiousness forbid to bow the knee before creatures, themselves created. Thus then, it appears, that the demonstrably existing mental faculties pass the decision of "No" upon the question whether it is accordant with their

clay-clad heart could discover no terrestrial charms save in Paganism. Nor could aught of congruous sympathy reach his affections from any sentiment impearled with Christian graces, or from any tear by Christian effluence.' Christianity Epitomized, by Rob. Bourne, Esq. pp. 121, 122.

^{*} Faber's Horse. Mosaicse, vol. i., p. 7, chap. 1.

constitution that the faculty of Veneration should be directed to more than one object. And this want of accordance is more fully seen when it is remembered, that the Father, SATURN, the original of the gods, is represented in Heather mythology as being divested of his power by his children; a palpable absurdity, that the source of power should be overcome by those who derive thence their strength; and a violation of the dictates of Conscientiousness, which commands us, as being just, to reverence our parents.

Some writers, however, have attempted to show, that the religion of the Greeks was, even in this matter, rational, and consequently just. We are told by them, that the great foundation of the Grecian mythology is one wise and benevolent God, diffusing happiness around, and protecting his creatures by dispensations equally wise and benevolent. This is a fact giving support to the proposition by showing, that once the impression of a being, in whom justice, mercy, and unity, attributes recognised by Conscientiousness, Benevolence, and Causality, with Comparison, are constituents, had its abode in the human mind. Of this, further notice will be taken hereafter. We are, in addition, told that the various gods implied only the peculiar operations

of nature as they were beneficial to man; and mythology consists of the personification of abstract qualities, of the sources of our chief benefits, or of different allegorical representations. But this does not justify the multiplication of deities, and does not make it more consistent in the eye of our faculties, that men should worship objects made; for their decision is, that we should venerate the source whence all the providential manifestations and virtues. flew. It may be said that the philosophers, the initiated, did so. They saw through the inferior deities to the one true God. It is possible; but Ideality says, that no likeness of .Him by whom. are all things, and to whom, and in whom, all things consist, can possibly be made. If it be urged, that it is to help the worshippers to raise their minds, Ideality, Hope, and Wonder, dispute the need of this; * yea, they spurn such or. any assistance, and beast that their powers are sufficient to wing even such a lofty flight.

^{*} It is true, that the practices of Roman Catholicism, and of Church of Englandism, may be brought in opposition to this; but then these practices can be recognised only by those in a very inferior state of mind, and will pass away when men become enlightened. These practices are the children of the darkness of Paganism, and will cease to exist when the sun of Christianity shines clear.

In order: to show more fully the discordance which subsists between the decision of our mental fingulties: upon the object fit for our adoration, and those decities, said, by the above writers, to be representations of virtues, it may be well to consider a few.

y Jupunta is the head. It is true that he holds the thunder and lightning in his hand; and, in this, is approved by our Cautiousness, but is abharred by our Conscientiousness, being represented without natural affection, as a violator of vistae, of the marriage-bed, and as an inventor of the most abominable contrivances to gratify his tast. Jono truly is a malicious dame, being first of envy, pride, malice, and practising unheard of crueities on the objects of her hatred. VERUS represented love, not the pure flame of affection, but the destructive element of passion; and the nature of her character is well exhibited by the nature of the worship effered, prostitution: look at Corinth. MERCURY was the god of thieves; and the circumstance which gained him his deification was his knavery. SATURN is represented as destroying and eating his own children. Mans is a bloody, murderous, madcowardly fool. Pruto is the god of hell and of riches. It is true that Minerva, Ceres, and Proserpine, are better than the rest. Bring these

boasted deities of Greece: and Reme to that bar of Veneration, to have the decision of our montal families, Causality and Comparison, guided by pure. Benevelence and unbiasted Conscientions ness, and what will be their judgment with respect to the question, whether these are fit objects for adoration? They will, they must decide in the negative; they will say, "these are no gods."

The Romans deified other objects: they gave the divinityship to Paleness, to Fear, to Disease, and exected temples for their weathin. And what do the above faculties say to this deification and adoration? They say, it is not consistent with our constitution, that any one mental faculty should wership the manifestations of other mental faculties; and Benevolence will never consent that its possessor should be before such loathed objects.

The phrenologist will have perceived another mark of degradation in these objects of adoration, inasmuch as, with a few exceptions, they are defications of our animal propensities, and, what is worse, of their misdirections: thus, Venna is an emblem of misguided Amativeness; Saturn of deficient Philoprogenitiveness; the Romans often sacrificed justice to Friendship, a misdirection of Adhesiveness; Mars is a good representation

of misguided Destructiveness and Combativeness. Mercury is a figure for Secretiveness, misdirected to thieving, and so with the rest. Thus the animal propensities have been elevated above the moral sentiments, contrary to the phrenological and scriptural doctrine, that the latter are supreme: the organs of the moral feelings being placed at the crown of the head.

The deities of the Romans and Greeks have been brought forward, not with the view of precenting the most horrible portraits, but the best; for these are what the wisdom of Greece, and the gigantic greatness of Rome, gave hirth to and acknowledged.

Philosophy has ever presumed to scorn the ignorance of mankind. It may, therefore, be fairly expected, that, in its dectrines, we shall find some gleams of truth, some more exalted notions of the Deity. And, as the friends of philosophical knowledge pretended to be free from the superstitions of the commonalty, we may reasonably hope to discover in their creed, some views more consistent with the irremovable decisions of the mental faculties. As the best example of the deities of philosophers, the portrait of the Hindoo God, as given in the institutes of Menu, may be presented. In the Vedanti philosophy, evidently Platonic, the

Almighty, known by the mystical and incommunicable appellation of O'M., is the only being; and all others, including Brahma, Vishaw, and Madeva, are only the creatures of idea or perception, which will perish in the general annihilation, while O'M. alone survives through all eternity. In the translation of a Persiz version of the Yoog Vashesti, a very ancient composition in Sanscrit, the following curious sentence is contained, "You are not to consider Vishnu, Bramha, or Madeva, and other incorporate beings as the deity, although they have each the denomination of deva or divine: these are all created. whilst the Supreme Being is without beginning or end, unformed and uncreated; worship and adore him." Before we obey this injunction; it will be necessary to be further acquainted with this Being's character. Upon examination we find not much to admire. It is true that this deity made a distinction between right and wrong; but it seems, that after the work of Creation was completed, the Hindoo Creater interfered little or nothing in the management of the concerns of the world. The Hindoo philosophers held, that he was unlimited in extent, and unequalled in authority. They held also inferior deities, whom they endued with divine attributes: and thus introduced Polytheism into

their system. Respecting future rewards and punishments, as far as the author has been able to dearn, nothing, or little less than nothing, is said. Conscientiousness may, to a certain extent, approve of this being: but Benevolence cannot lack with pleasure on his stoical indifference; Hope-cannot contemplate him with delight; nor Constituences with maxiety.

It was my intention to present individual portraits of the god of each philosopher. minutely examining the subject, there is so little congruity, the same person having different notions in different parts of his works, or of his life, as to defy all exactness of portraiture. Those who wish to know more on this matter. and to be convinced that the author asserts the truth, need but turn their attention to Enfield's translation of Brucker, or to Brucker's work itself: and to the scholar, I know of nothing that will exhibit the uncertainty of feature of the deities of the philosophers with more brevity and beauty, than Kenophon's remarks concerning the gods. In this he introduces the opinions of his master, Socrates, who is represented as pointing out the duty of modesty towards the gods; as illustrating their benevolence, providence, continual watchfulness, and anxiety concerning men, and the impossibility of perceiving them.

philosopher states the character of Him, who made and preserves the world; in whom every thing useful, lovely, and good exists, as not liable to injury, disease, or old age: as infallible, and as governing the whole universe. Yet we find that he gives the duties or offices of providence to others, and does not confine them to this one. Being; and as a most striking instance of the uncertainty of character in the Socratic deity, we find the philosopher, as his last command, ordering a cock to be sacrificed to Esculapius. It need not be repeated how such contraricties are in opposition to our mental faculties.

The atheistical notions of the ancient philosophers are clearly illustrated in the paper on Atheism in the Edinburgh Encyclopedia. To this, and the above works, the reader is referred; and he will find, taking the faculties as demonstrated by Phrenology for his touchingstone, not one of the many deities to stand the test.

These remarks will be closed by a portrait of the Epicurean God, which as drawn by a heathen philosopher, Seneca, is the most perfect we have: "Epicurus fancies God to be without power, and without arms: above fear himself, and as little to be feared. He places him betwint the orbs, solitary and idle; out of the reach of mortals, and neither hearing our prayers, nor minding our concerns; and allows him only such a veneration and respect as we pay to our parents." Of this being our faculties cannot approve. Our Causality and Comparison cannot resognize a God without power; our Veneration, combined with the other faculties, denies, both that God is not to be feared, and that the reverence due to him is not greater than that we owe to our parents. Our Benevolence will not allow of a God who is not engaged in henevolent providences; and Conscientiousness cannot recognize a being not exercising justice.

Amidst this variety of divinityships, we cannot find one portraiture that claims the approbation of our mental faculties. All have some blot, some stain, that renders them, as usurpations of the Divine character, hideous to behold. And, if we direct our attention from them, to the God of the Deists of modern times, something more consistent, but, in one respect, glaringly defeative, will be seen. It is true, that deistical diligence has worked out a being, in whom are many beautiful traits of character. It is one of their own making; and is nothing more than a melange of whatever pleased them

^{*} Seneca de Beneficiis.

in the gods of heathen idolatry, and in the Author of Christianity. But one feature condemns this creature of fancy; and this is, that justice does not hold a part in its character. The violated law, whether of nature or of revelation, is overlooked by the Deist's God; whereas, Conscientiousness, a primitive faculty of manis mind, calls aloud for punishment upon every offender against any just commands. The Deists represent God as merciful, but not as just. Of this Deity, our faculties, unbinesed, cannot allow; and man cannot by their unanimous consent bow before such a being; for, though it is true that God is a God of mercy, he is enabled to show forth this lovely trait, only as connected with justice. Deists boast of leaving to Christians the Ged of revelation, and taking to themselves the God of nature; but, if this view be correct, they embrace a shadow, not a substance; a being, neither in nature nor in revelation.

As yet, the glorious object has not dawned. Are we left in this unpleasant deficiency? Is there no being on whom our Conscientiousness, Benevolence, Hope, Causality, Comparison, Cautiousness, and Love of Approbation will alight? Is there no being in whom Justice, Mercy, Glory, Infinity, Power, and Holiness

shine forth as constituent features? We have such a Being, who is the God of revelation. order to prove this, we must have recourse to revelation itself, and take its testimonies concerning its Author.

As a prominent feature, we find the Unity of the Deity.* Equally so are the Attributes of Love (indeed it is said, "God is love"), Mercy,+ Goodness, † Wisdom, & Power, || Omnipresence, Immutability, a Justice, b and Holiness, c. We are taught that He is every where -that nothing is hidden from his eve-and that He will bring every secret thing to light, whether it be good or evil. The Christian's God is represented as being "jealous" of His honour, and will not give his glory to another. This, and all other traits in the God of revelation, our faculties, unbiassed, delight to contemplate. is here that Veneration finds its resting-place:

* Exod. xx. 3; Deut. iv. 35, 39.

† Exod. xxxiv. 6; Joel xi. 13; 2 Cor. i. 3.

† Psalm lxxxvi. 5; Psalm cxlv. 9.

§ Psalm xliv; Acts xv. 18; Heb. iv. 13; Psalm civ. 24. || Isaiah xiv. 24; Dan. iii. 17, 29; Rom. i. 20.

¶ Psalm cxxxix. 7.

a Malachi iii. 6; James i. 17.

b Genesis xviii. 25; Deut. xxxii. 4; Revelation xv. 3.

c Lev. xix. 2; 1 Samuel ii. 2; Isniah vi. 3; Rev. iv. 8.

here, alone, that happiness is to be found; here, that the creature discovers the image in which he was created.

It is hoped that the truth of the fourth proposition is now fully seen: That it will appear, that man, being constrained by the constitution of his mind to worship some being, CAN APPROVE OF THE GOD OF CHRISTIANITY ONLY as the fit object of worship.

I am well aware that objections may be started against this view, by having recourse to the particular character of the God of revelation, as exhibited in the facts forming the foundations of Christianity; but, as this part of the argument embraces merely the general character; and as the nature of these facts will be fully illustrated hereafter, the conclusion remains indisputable, that the God of Christianity, as to his general character, is the only one approved of by our unbiassed faculties; and, being so, we are justified in concluding, that the Author of this system is the Creator of our frames, the Former of our mental constitution.

Well, then, may the Christian disciple adopt the language of Paul and say, "For though there be indeed, what, by the *heathen* are called gods, whether in heaven or in earth; as there are in their estimation many gods and many lords, yet to us there is but one God, the Father, from whom all things are, and we are formed for him; and one Lord, Jesus Christ, by whom all things are, and we are saved by him."—1 Corinthians viii. 5, 6.

PART II.

HAVING proved that the UNBIASSED decision of the intellectual and moral faculties leads to the approval of the God of Christianity as the object of adoration, because that God is, in His attributes, one that can admit of the activity of the whole of these faculties; and having shown that man, instead of bowing in reverence before this his Maker, has bended his knee before a Venus, a deification of lust; a Mars, an emblem of war and all its horrors; a Jupiter, a similitude of a buccaneer, despising laws civil, domestic, and religious; and others equally bad; it naturally arises as a question, how has this taken place? And when we see, in addition, that

man still bows before the creatures of his lust, before some inferior object, which he considers perfection, the question is still more powerfully pressed home, and an impulsive feeling leads to the inquiry, how it is that the world by wisdom knew not God?

The replies to these inquiries, as well as other important points, will be treated of in this, the second part of the dissertation; and, in order that this paradox may be unravelled, the argument drawn from the particular character of God, as exhibited in the means for obtaining and preserving his favour, coinciding with the constitution of the human mind as demonstrated by Phrenology, will be brought forward and illustrated.

The fifth proposition to be examined is, That man naturally can do nothing good in the secht of God, and that Christianity recognises this inability.

It has been hinted, that in the earlier ages of Greece and Rome, some faint ideas of one wise and intelligent Being are perceptible. This, no doubt, was the result of the faculties which, unbiassed, lead to the God of Christianity as the

fit object for adoration, not being totally overpowered by the animal propensities. Still the
ignorance respecting the Supreme was general;
so much so, that Lactantius says of Plato, "Plato
somniaverat Deum non cognoverat;" "Plato had
dreamed about, but had not known, "Cod?"
And Seneca remarks, "Nemo novit Deum;
multi de illo male existimant et impune," Ep.
xxxi. "No one knew God; many think wickedly and without punishment respecting him."
So great, however, was the blindness, that even
the Jews themselves, who were favoured by
revelations from the God of Christianity, continually forgot him, and fell into the idolatries of
the surrounding nations.

Seeing, then, that the faculties, unbiassed, lead to the choice of the God of Christianity, and bearing in mind the fact, that none have ever chosen this Being, we must conclude in the existence of a general change in human nature, and that for the worse. Indeed, in any way to account for this ignorance of man, we must conclude that some evil change has taken place in his mental constitution; and the desperately wicked nature of this is shown in the effect, that it has alienated his mind from God.

In order that we may be enabled to understand more fully the matters treated of in the fourth proposition, a few remarks will be made upon the nature of this change.

In order to investigate this important subject, it is necessary to remark, that Phrenology proves we have certain mental faculties, belonging also to animals, and others, peculiarly our own. former form what has been called the "animal nature," the latter, the "human nature;" and the principal of these latter to be noticed are Benevolence, Veneration, Conscientiousness, and the intellectual reflective faculties. Through the following pages the terms are used in these senses. A similar distinction exists in the Bible: the "animal nature" being designated by the word "flesh," "the human," by the name "spirit." The animal nature is, according to the observations of phrenologists, the predominating, and calls into obedience to its dictates all the other faculties. This, intended to give force to the human, and to be under its sway, has, as is proved by the fact, that no one has chosen the God approved of by the faculties constituting the latter nature, gained the ascendency; has taken the rein, and lashes man on to misery and destruction. The effect of this is, that the moral sentiments, Benevolence, Veneration, Conscientiousness, &c., constituting an important part of the human nature, instead of being directed to

God, as being love, the proper object of Benevolence; as being just, the suited end for Conscientiousness; as being above all, the lawful outlet of Veneration; as being unchangeable, the delight of Hope; are made to be subservient to Adhesiveness, so as to make us supremely attached to friends; to love of Approbation, to render us obsequiously kind to the great; and to Cautiousness, to make us just. And, from the evidence of the fact already established, such is the sway these animal propensities have gained, that, unless man is delivered by some extraordinary power from their thraldom, he cannot direct the human nature to the proper object. It appears, then, that our animal nature is continually opposing our human, and the one prevents the other from following its own course. Thus the Author of Christianity observes, "That light is come into the world, and men loved darkness rather than light, because their deeds were evil;" or, in phrenological language, a being came into the world, who was actuated by Benevolence, Conscientiousness, and Veneration in the highest degree; that men, who lived and acted under the influence of their animal nature, did not love this exhibition of the supremacy of the human; and, that being so biassed, would not receive the deliverance offered, but preferred

to remain under the thraldom of the animal dispositions. And the continual opposition between these two natures is testified to by an apostle, who says, the "flesh lusteth against the spirit; and the spirit against the flesh;" and who informed us also, that "the carnal mind is enmity against God; and is not subject to the law of God; neither indeed can be." And, so powerful is the effect of the animal nature, that "there is none that understandeth, there is none that seekethafter God," Rom. iii. 2, Ephes. iv. 18, as has been shown.

As long, then, as the supremacy is maintained by the animal nature, so long man can do nothing good in the sight of God; for it has been proved by phrenology, that unless actions are performed from the motives arising from Benevolence, Conscientiousness, and Veneration, there is in them nothing virtuous. The reason of this depends upon a phrenological principle, that all the faculties, but the three just men tioned, have self for their object. For illustrations, see Phrenological Journal, Vol. iii Novas. Now, it is well known, that wherever self is comcerned, no virtue can exist; for virtue is ascribed only to those actions which result from Benevelence/ Veneration, and Conscientiousness facult ties not having self directly as their aim. These

three have a relation to God, producing in their unbiassed exercise love to God; and, in their relation to man, love to man; the two great-principles of the moral law. We have see the, superiority of the human nature over the animal; and have the most striking evidence of the change in man, and of the fact, that he can do nothing good in the sight of God, when we consider that the animal nature holds over these an almost unlimited sway, preventing the moral sentiments free exercise in loving God and in loving man.

The necessity of these three faculties being exercised in doing any thing good in the sight of God, is borne witness to by the Scriptures. . The prophet Micah thus writes. "he hath showed thee, O man, what is good; and what doth the Lord require of thee, but to do justly (the dictate of Conscientiousness), and to love mercy (the dietate of Benevolence), and to walk humbly with thy God (the dictate of Veneration)," ch. vi. 8. The prophet Hosea gives the same view; "Therefore turn thou to thy God: keep mercy and judgment, and wait on thy God continually," ch. xii. 6. Jesus Christ gives the same interpretation of what is good in the sight of God. He is reproving the Pharisees, "Woe unto you. Scribes, Pharisees, Hypocrites, for ye pay tithe

of mint, anise, and cummin, and have emitted the weightier matters of the law, judgment, wercy, and faith (outgoings of Conscientiousness, Benevolence, Veneration, and Hope); these ought ye to have done, and not to leave the others undone." Matt. xxiii. 23.

Herein is a striking coincidence between the decisions of phrenological science and the dicta of Christianity: the former, affording a positive proof of the doctrine of the latter, that man can do nothing good in the sight of God; an inability dependent upon the fact, that the animal propensities rule; a dominion constituting a courupt bias, attended with the misdirection of Benevolence, Veneration, and Conscientiousness, by the proper direction of which only good can be brought out.

It thus appears that man can do nothing good in the sight of God. But this is not the whole extent of the evil; for man is of necessity evil: and though some maintain that man can love and worship God, when he likes so to do, this is a false position, as will be immediately shown.

Necessity is a word, which, on account of the different meanings attached to it, needs explanation. By necessity, I mean, that man acts from certain fixed principles, the laws of his nature. These laws have such an influence, and

are so unbending, that, whenever actions are conformable thereto, happiness is the result; when not, misery is the consequence. The physical world is guided by fixed laws; or is in other words, under necessity. Thus, as long as the law of gravitation acts, the earth and other planets must roll round the sun. So it is in the mental world. Certain laws have been fixed to guide our faculties, and we must act according to them. Let not the reader be startled: for, with all humility be it said, the Creator himself is under this kind of necessity; for He cannot look upon sin but with the greatest abhorrence and detestation. It has been seen, that the animal nature gives its dictates contrary to the dictates of the human; an evidence of an evil change; and it has been proved by observation, that the power of the former is supreme. As long then as it retains this supremacy, so long must man act in a way contrary to the dictates of the human nature; and as it is only when the actions are dictated by the latter that they are good, it is evident that man is, of necessity, evil.

It may perhaps be said, that by cultivating the moral sentiments and intellectual faculties, and adopting every method to diminish the animal propensities we may at length rear up a power capable of resisting the predominating influence

of the last class of faculties. No doubt, but what means, in the present state of society, can be efficacious in realizing this? The efficacy of the means commonly made use of will be shown in the examination of the fifth proposition; wherein the means which God has proffered for this PURPOSE, will be investigated. Man, therefore, is a creature, of necessity, evil; and this part of the subject will be closed by an example, wherein the impossibility on his changing the evil direction, and consequently the necessary evil tendency of his nature, are most strikingly seen. It is taken from Jewish History. The people of Israel had been delivered by wondrous miracles from Pharach's power; the sea had separated in their presence; manna had been showered upon them from heaven; they had seen water gush out of the solid rock; vet, in spite of all these exhibitions of divine power, they, after the absence of Muses in the mount for forty days, called upon Aaron to make a calf that they might worship it. And what is more, this very people, some centuries after, in spite of having suffered numberless afflictions for leaving the worship of the true God, are thus complained of in the book containing their history, "My people ask counsel at their stocks, and their staff declareth unto them." Hosea it.

12. Can there be a stronger evidence of the necessarily evil tendency of the mind of man.

The second part of this proposition, That CHRISTIANITY RECOGNISES US IN THIS STATE, is now for consideration. In proof of this, all that is necessary will be to bring forward a fewstatements contained in the volume in which this system is embodied. So abundant are these. that the only difficulty is, which to select. The apostle Paul, writing to the Romans, makes the following statements, not, as his own, but as the words of inspiration: "We have before proved: both Jews and Gentiles, that they all are under: sin; as it is written, there is none righteous, no, not one. There is none that understandeth: there is none that seeketh after God. They are all gone out of the way; they are together become unprofitable; there is none that doeth good, no not one. Their throat is an open sepulchre; with their tongues they have used deceit; the poison of asps is under their lips; whose mouth is full of cursing and bitterness. Their feet are swift to shed blood: destruction: and misery are in their ways; and the way of

peace have they not known. There is no fear of God before their eyes." Rom. iii. 9-19. And it is related in Genesis vi. 5, "And God saw that the wickedness of man was great in the earth, and that every imagination of the thoughts of his heart was only evil continually." The word, translated imagination, embraces not only imagination, but also the purposes and desires. No language can be more special; and when we add to the above the forcible inquiries, "Can the Ethiopian change his skin, or the leopard his spots?" it cannot be doubted that the doctrine of man being necessarily evil, that is, as connected with any means of his own for deliverance, is a feature of the Christian system. And as an additional proof, the Christian is taught, that he is unable to do any thing good of himself. John xv. 4.

The sixth proposition is now to be considered. It is this,—That the means to be employed to obtain and preserve God's favour are in conformity to the character of man, as necessarily evil.

It has been already stated, that the end of all

religions is to obtain the favour of God, and that their subject consists of the means to be employed for the obtainment. How then shall a creature, necessarily evil, obtain the favour of his Creator, who is necessarily good? If we review the black pages of ancient history, we shall find many means made use of, alike repugnant to reason, as well as to humanity. Men, not content with sacrificing their flocks and herds to appease and propitiate the offended deity, have immolated their children,* a practice which our mental constitution will never permit us to consider as suited to satisfy the justice of a just and good God. Our Benevolence cries out against the latter; and, against the former, Causality and Comparison protest the absurdity of offering to God, as an atonement for offences, that which is God's own.

As to man doing any thing for himself, this is impossible. All that he does is evil. He cannot be justified by the deeds of the law, because he cannot do them; his very constitutional corruption leading him continually to violate the first

^{*} In South Africa, in the Felatah country, Mr. Oldfield, who accompanied Lander in his two expeditions up the Niger, informed the writer, it is common now to offer the bodies of ten men at a time, as a sacrifice to the god of the river, or, to some of the gods of the country.

commandment, which enjoins a perfect love of God: the duty, to the performance of which, his unbiassed faculties lead. If, then, man does obtain the favour of God, it must be in a way that requires nothing to be done on his part: it must be something that will overcome the enmity of his heart, and make all his affections run into that original channel in which they flowed when he was first created. Is the plan which Christianity recognises as efficient to obtain the Divine favour, in accordance hereto? It is: nothing is required of man but what the most degraded is capable of: man is commanded to BELIEVE THE This is all in all: this is TESTIMONY OF GOD. the first step to favour, indeed it is the only step. The testimony is this: "God so loved the world, that he gave his only begotten Son, that whosoever believeth on him should not perish but have everlasting life." Such is the nature of this testimony, that whosoever accounts it as a faithful saying, and worthy of all acceptation, is so changed, that he is said to be born again. The carnal mind, or animal nature, is made to fall under the dominion of the spiritual, or human nature; and the man thus renewed, from being a hater, becomes a lover, of God. Being thus brought under the sway of the moral sentiments and intellectual faculties, actions now spring from

these sources; Benevolence, Veneration, and Conscientiousness, conjoined with the Intellect, being busily engaged in exciting to pursuits, having the love of God and the love of man for their source, and the glory of the Creator and the happiness of the creature for their end.

A question now occurs, how can it be proved, that these means are efficacious in producing this change, and its effects? For, lamentable indeed it is, if we were to judge on this point from the lives of many of the professed disciples of Christ, the conclusion must be, that the means are unable to bring about the end: but we shall leave these characters, to consider the doctrine. Phrenology demonstrates, that, in the human mind, Benevolence. Veneration. Conscientionsness. Hope, Causality, and Comparison, and other intellectual faculties, exist; and that these, their proper excitement being applied, must act. Kindness must excite Benevolence; a deed of justice must awaken Conscientiousness; and so, with the rest. The emotion produced, moreover, will have a strength just in the proportion in which the faculty is large, and the exciting object influential; which influence will depend upon the object being clearly perceived. It has been shown, in addition, that the human is under the influence of the animal nature. Now, in order

to deliver the former from the thraldom of the latter, it is necessary that such an influential exhibition of goodness, justice, and wisdom, should be presented to the human nature, consisting of the above faculties, as to impart to them a power sufficient to overcome the bias of the animal. The facts of Christianity, regarding the means of obtaining God's favour, present this exhibition, and this must act in the way required from the very constitution of the mind. boldly averred; as, from this constitution, Innocence, suffering for the guilty, pleads to Benevolence with a force that is irresistible; the Lawgiver, bearing the punishment due to those who had broken His law, obliges Conscientiousness to be no longer dormant; and the deliverance from the curse of the broken law, makes Hope to rejoice, and Cautiousness to cease its anxieties: except in so far, that now the fear is one dependent upon Benevolence and Veneration, a filial fear; whereas, formerly it depended upon the faculty itself, and on Conscientiousness, being a fear of bondage. It thus appears, that the facts of Christianity must produce the effects stated; and that the force of these facts is so great, as to overcome the bias of the animal nature, and to enable the human to bring every thought into subjection to God.

It was remarked, that the influence of these facts depended upon their being clearly perceived. The want of their clear perception has made many persons professing Christianity to remain with their hearts unchanged; or, in other words, still to live under the power of their animal nature; the imperfect view they received not being sufficient to overcome the bias of the said This shows the necessity of some enlightening influence, to free the eyes from the scales which cover them; and in this view Christianity coincides; for we are perpetually told of the necessity of the Holy Spirit, who convinces 44 the world of sin, of righteousness, and of judgment." It is, therefore, to be maintained, that the perception is to be made clear; that is, a power, superadded to the facts of Christianity, is necessary to clear the power of the mental vision, to perceive the facts; and that the Holy Spirit is necessary, not because the truth is insufficient in itself, but because the opposition of the depraved misdirection of man's faculties can be overcome only by the facts being clearly viewed; which clearness of view can be obtained only through the agency of the Holy Spirit. A man on the brink of a precipice, and perceiving that he is about to fall, is thankful to his deliverer, or to one who offers deliverance: but one lying in a

state of torpor, is angry that he is disturbed, though the next moment his limbs should be scattered to the winds. So it is with men, respecting the truths of Christianity. One principal part of their animal nature is self-esteem: this, biassed, leads to self-confidence and pride, and prevents man from perceiving his real condition. In order to overcome this blinding influence, and to enable him to see the danger to which he is exposed, the Spirit of God is necessary to convince him of sin; or, in other words, so much to alter the bias of this faculty as to prevent it from impeding his view. Hence it is, that humility is the characteristic of every one who has been so delivered; and the Author of the Christian system remarks, " Except ve be as little children, ye cannot enter the kingdom of heaven." How strikingly the natural laws agree with the revealed!

It may here, perhaps, be brought forward as a question, That when the moral sentiments are small, how can we expect the facts of Christianity to communicate to them such a power as will enable their dictations to be superior to those of the animal propensities? To this it is replied, that an habitually selfish man often, under the influence of a peculiarly powerful motive, does a generous deed. The performance of this deed

depends upon the power of the motive exciting to action. So with Christians with small moral sentiments. The facts of Christianity present so powerful a motive exciting these, that their dictations become more potent than those of the animal nature. Every one, moreover, acknowledges the difference between Christians. We have some meek Christians: some impetuous: some zealous: some timid and retiring: some deep-thinking: others more superficial in their mental exercises. These differences are to be ascribed to their previous mental constitution, the essential nature of which is not destroyed, but merely altered in its direction. Thus Paul was the same zealous, fearless, intellectual being after, as before his conversion.

An important question now presents itself; can this deliverance from the thraldom of the animal propensities be effected by any other means? Philosophy has boasted that it can. By cultivating the intellect, and studying works of taste, the wise man of this world refines his character: a delicacy is acquired, which makes its possessor scorn every thing gross in manners and base in principle. He pursues the path of morality, not so much from loving it, as from an opposite journey being beneath his dignity. Thus his Self-esteem is his grand support; and

though "he is as far removed from the grade of the sensualist as the lion is from that of the mole, still both are unregenerated animal nature." According to this system of deliverance, no Benevolence is excited, no Conscientiousness is awakened, no Veneration is called forth. These are allowed still to wander from their proper object: and the man, instead of being humbled, is puffed up; for "knowledge puffeth up, but love edifieth."

It will be thus seen, that modern philosophy cannot change the bias; and we have sufficient evidence, that ancient philosophy did not produce any such renewal; and we must, therefore, conclude, that as Christianity will, it is the only system that can have this effect. Indeed, bearing this in mind, we may with justice say of those philosophers, who try to bring about this change by their own means, "Behold, all ye that kindle a fire, that compass yourselves about with sparks; walk in the light of your fire, and in the sparks that ye have kindled. This shall ye have of mine hand; ye shall lie down in serrow." Isa, l. 11.

Christianity, then, produces its effects by enlightening the mind, and gives such a powerful impulse to Benevolence, Veneration, and Conscientiousness, as to enable them to overcome

the power of the animal propensities, which, when predominantly active, not only weaken, but blind the former. This change being produced. man is enabled to do good in the sight of God; that is, as long as he acts from his human faculties. But as the animal propensities still remain, and are ever inclined to wander in the old direction, to assume their original sway, it is necessary that the objects presented by Christianity should ever be kept in view; because it is only by attending to this, that the power necessary to the human faculties to resist the attempt of conquest over them can be preserved. In conformity to this view, the Christian is commanded " to live by faith;" that is, he is continually to bear in mind the glorious truths forming the foundation of the Christian system, which are so many motives exciting to generous activity his moral sentiments. It thus appears, that faith is the beginning of every thing good in the sight of God; and Christianity testifies, that " whatseever is not of faith is sin." Rom. xiv. 23: and Christians are further commanded to add to their faith virtue. Indeed, so necessary is this faith, that it must be the principle of life; for a person cannot be said to live by it, unless it acts in him as the source of all his actions.

This proposition is thus established; and the

accordance between Phrenology and Christianity has been seen; an accordance in examining the last part of this proposition, to be seen more fully.

The obtaining of God's favour is, therefore, the first step towards the right performance of any Christian duty. The love to God, and the love of man, produced by the faith, induce an earnest desire to preserve the favour thus obtained. Benevolence having been excited, rejoices in obedience; and, in order to obey, the Christian attends to the command of the Being, whose love has excited his faculties to love, and to study the word of God; to take it as a lamp to his path, and a light to his way. The believer, in examining the Scriptures, finds his own feelings embodied in the two short sentences, "Thou shalt love the Lord thy God with all thy heart, and soul, and mind;" and "thou shalt love thy neighbour as thyself." prevent him from erring in the application of these precepts, the word of God is full of instructions, adapted to every circumstance of life. In the performance of these two duties, the faculties which are supreme, are Benevolence, Veneration, Conscientiousness, Hope, and Ideality, with Causality and Comparison. These have now obtained the sway; but still the animal nature exists, and, though now brought under the power of those faculties constituting the human, is continually inclined to run into the old channel: to rush into the service of SELF, rather than to be drawn into the noble employment of God and MAN. Indeed, though the power communicated by belief is sufficient, by the use of the means appointed, to overcome the animal nature, yet the power of the latter is not totally destroyed. The old man is crucified, not dead; indeed, he cannot expire till this corruption is put off, and incorruption put on. The combat, therefore, must be continual. Christianity recognises this; the life of the Christian being compared to a fight, a race. The Christian is told, moreover, that "the flesh lusteth against the spirit, and the spirit against the flesh:" and one of the most remarkable disciples of Christ exclaimed, in the agony of the conflict, "O wretched man that I am, who shall deliver me from the body of this death?"

The enemies of the Christian are not confined to himself. He has other foes; and it is now to be shown, phrenologically, that as long as the Christian is such, and the world is the world, he must suffer persecution; so long must the assertion of inspiration be verified, "Yea, and all that will live godly in Christ Jesus, shall suffer persecution." 2 Tim. iii. 12.

It appears from the observations made upon the fifth proposition, and the former part of this, that the animal nature preponderates over the human; and, that as long as this holds the supremacy, so long does man act from motives purely selfish. It is evident, then, that as in the majority of the human race, the animal nature is predominant, the institutions of society will be opposed to the human nature. This applies less to the fixed laws of justice, than to the customs and the modes of society. For the very safety of the commonwealth makes legislators to frame laws upon the broad principles of equity; although, even in our legal code, we find maxims, regulations, and practices recognised, quite opposed to sound reason and to liberty. Reference is made to test-acts, gamelaws, and the sanguinary punishments inflicted upon offenders. But, for our present purpose, the opinions, the modes, and the customs of general society will afford abundant illustrations.

It is an opinion generally held, that the love of distinction, honour, and fame, is proper, ennobling, and worthy of man. Every public

building teems with images, before which, as representing illustrious dead, the youth of our land are taught to bow, and aspire at imitation. A Nelson is deified in one place; a Pitt in another, and a Fox in another. A Mansfield has a niche in the Legal Temple; a Curran in another, and a Brougham a third. Indeed, every thing is presented to the sight, and through it to the imagination, to cultivate a longing for immortality, not in the pure regions of never-ending bliss, but in the memory of man, itself to cease. To the bold and adventurous, fortune hangs out all her laurels; the path of the peaceful virtue is the way of silence, and the destructive conqueror holds the highest pinnacle of fame. Christianity forbids seeking* these honours, or desiring for this fame, which comes from man. Higher objects are presented to the grasp of the Christian. He is commanded to seek not the honour that cometh from the world. Yet, in passing through this state of existence, many and powerful are the tempta-

^{*} Christianity does not bid a man to reject these honours, if they come to him in the course of the performance of his duty. This mistaking the arrival of the honours, as a consequence of proper conduct, for the seeking of the honours themselves, has produced much disquiet in the minds of the good.

tions, having the tendency to lead his mind in the improper channel, and to make him seek the approbation of men rather than of God.

Again: the world holds, that it is just to retaliate infuries. Christianity maintains quite a different sentiment. "Love your enemies," is its precept. "Do good to them that despitefully use you," is another of its injunctions. In the world, duelling is fashionable; for although denounced, in the public press, as a general practice, yet, in individual cases, the duellists meet with approbation; the excuse being, that they were obliged, by circumstances, to attempt to precipitate one another into the presence of a holy, good, and just God!

"It is remarkable," says Dr. Spurcheim (Philosophy of Phrenology, p. 50), "that all codes, revealed or profane, with one exception, have declared the amor patriæ, or love of country, a principal virtue. The Christian doctrine alone acknowledged no exclusionary patriotism: it alone commands universal love." Herein we see another point in which Christianity differs from the general opinions of mankind. And here we meet with an impertant confirmation of the necessity of faith previous to attempting the performance of any Christian duty; for, in order to feel this universal love,

taught so simply and beautifully in the parable of the good Samaritan, it is necessary that the human nature be supreme; whereas, in none but Christians it is. The necessity of this supremacy is evident, when we consider, that this love of country is the result of a mere animal propensity, common not only to man, but dogs, cats, and other species of animals.

Again: in Christianity it is a doctrine, that father and mother, brother and sister, are not to stand in comparison with Christ. And the evangelist informs us, that when the mother of Jesus wished to see him, he replied, that all who did the will of his Father, were his mother, his sisters, and his brethren. This doctrine has always sounded harsh to the ears of men; but when we remember, that the love of parents, children, relations, and friends, is merely in its origin the result of the animal nature, and is common to ourselves and beasts: whereas the love of God and obedience, its effect, are the consequences of the supremacy of the human nature-we see the justness of the command. In fine, the love of the one is to be put aside when that love interferes with the activity of the higher feelings. Why do men admire the conduct of Brutus in condemning his own sons? For this subjugation.

Another prominent feature in Christianity is, that he that is the humblest is the greatest. This is quite in conformity with the predominance of the human over the animal nature; for the love of superiority is dependent upon animal desires, namely, Love of Approbation and Self-Esteem; whereas, Humility originates in Benevolence and Veneration, guided by the intellect. Who can say, that the feature referred to is at all generally recognised by markind as a practical truth?

Indeed, a volume could be filled with instances in which the precepts of the world and gospel are at variance. And so diametrical is the opposition, that the God of Christianity asserts, in If any man love the world, the love of the Father is not in him." I John ii. 15.

Not only is the world opposed, but the devil also. With respect to the opposition hence arising, this is known, that it is great. And however much the songs of poets, the scoffs of the vulgar, and the moderating and temporalizing doctrines and dignified sneers of philosophers, may have had the tendency to strip this enemy of man of his horrible character, and thereby to blind men to his nature, the Christian holds it as an undeniable truth, because the God whom he loves says so, that this being, as a roaring lion, goes about seeking whom he may devour. The

devil is continually on the watch—he knows every one's weak point-tries one scheme and then another to seduce the Christian. At one time, he uses poverty and its unpleasant attendants; at another, presumption; and when he finds them to fail, has recourse to prosperity and all its blandishments. This is the series of trials to which he had recourse in tempting Jesus Christ, the Christian's great Exemplar, in the wilderness. It would be inconsistent with the limits of this dissertation to be more minute; and we may close by remarking, that though an enemy to all mankind, he is peculiarly so to the Christian, often transforming himself into an angel of light, to lead the follower of the Lamb from the fold of God.

Such are the enemies with which the Christian has to cope. It now remains to be shown, that the MEANS, APPOINTED FOR DEFENCE, are such as will be sufficient to enable him to make a successful resistance.

It has already been hinted, that the Christian's life is a fight: in conformity with this he is said "to fight the good fight of faith." How, then, is he enabled to maintain this combat? It has been proved, that man is a creature of necessity, and that this necessity, naturally, is towards evil. It has also been proved, that when a believer of

the gospel, his faculties are directed into a different channel; but that he is still the same weak! character as he was before. He is unable of himself to do any thing good as formerly. For though he loves good and God, yet, without assistance from above, so strong is the tendency of the animal desires, that, though to will is present with him, to perform he finds is net. But, according to the principles of Phrenology, as regarding necessity, as long as the love of God is the predominating motive, so long must the Christian, as far as he knows it, walk in the path of duty; for "the love of God constraineth us to deny ungodliness and worldly lusts, and to walk soberly, righteously, and godly in this present evil world." Hence the necessity of being stedfast in faith, by which this love is continually kept before the mind; and hence the forcible beauty of the doctrine of the apostle Paul, "Thou standest by faith," (Rom. xi. 20), and of the duty of living "by faith."

The love of God is, therefore, the moving spring in the machinery of the movements of the Christian's life. From the influence, however, of dampening unbelief, and the enervating oppressiveness of the atmosphere of the world, in which the lover of God is, to a certain extent, obliged to move, this spring is liable to want of

force and due vigour. How, then, may its tone be preserved? It may rust: how is its polish to be kept untarnished? Or if tarnished, to be restored? These questions are now to be answered; and in answering them, an opportunity will be afforded of showing some striking accordances between Phrenology and Christianity, since, in the means employed, we shall find the faculties demonstrated by the former science, continually appealed to.

These means may be reduced under four heads: precepts, example, rewards, and punishments; the first, deriving their authority in guiding the Christian from Benevolence, and approved of by the intellectual faculties; the second appealing to Imitation; and the third to Hope, Cautiousness, and Love of Approbation. With respect to the precepts; "All Scripture," the Christian is taught, "is profitable for doctrine, for correction, for instruction in righteousness." It is thence that he draws his rules of conduct. One prominent precept is, the loving of those who show their love to God by obeying his commands: "By this shall all men know that ye are my disciples, if ye have love one to another." This leads the Christian to seek out those, who evidence by their obedience to the ordinances that Christ has appointed, and by a

profession of faith in his name, their love to His Benevolence is delighted in contemplating them as being sharers together with himself in the Saviour's love. His Adhesiveness, seizes them as objects of attachment, and, urged on by this faculty, he delights in meeting with them upon every favourable opportunity. Thus meeting, they form a Christian assembly; and after attending to the precepts given for the regulation of themselves, they become a Christian church, and meet together on the first day of the week for breaking of bread (or the Lord's supper), for prayers, and other ordinances, anpointed by Christ to be observed by his disciples. They do not "forsake the assembling of themselves together and exhorting one another." And, in obeying these precepts, the Christian's faith, and consequently his means of resisting temptation, become strengthened. The faculties of his mind become more habituated to the proper but new channel in which they run; and the determination of purpose in the pursuit of what is holy and acceptable in the sight of God, acquired by this communion of soul, is astonishing, and is dependent upon a fixed principle of Phrenology—that the faculties are strengthened by exercise. The faculty of Veneration finds daily more ease in running in its proper channel: the Christian traces the features of his God in every thing; indeed, he reads his Father's name written on all creation. His Benevolence becomes more active from an increased discovery of the love of Christ, and from the sacred influence of the love of the brotherhood; and the instructions and exhortations received in the church are such, that he is built up in his most boly faith, and grows in the knowledge and love of God. Daily he obtains fresh victories over his enemy, and finds, that the attempt "to keep under his whole body," and to bring it more and more into subjection to the law of Christ, becomes continually more easy. Fresh discoveries are made every day of need of divine assistance; of pardon for sins; and, in the contemplation of the fulness of Christ, the soul feels all its joy to exist, and its possessor rejoices evermore, on finding, that where sin bath abounded, grace doth much more abound. His Benevolence is necessarily excited more and more; an enlarged desire to live to the glory of God is produced in the mind, and the soul increases in the abhorrence of what is evil, and in the love of what is good.

And, in addition, let it be remarked, that the tie upon which the mutual love of Christians is founded, is one which depends on the MORAL

SENTIMENTS: it is that of loving their Saviour. This one object is common to all, a possession peculiar to none; and hence, no one can disregard his fellow-Christian as inferior to him. Whereas, had the tie been founded upon riches. priany other extrinsic circumstance, then, it is evident, the rich or the noble, or the poor or the ignoble, could not have met; and thus the proud and vain distinctions of society would have been for ever kept up. But Christianity regards all men as equal; and hence, by its motives and precepts, cultivates the faculties constituting the human nature; faculties recognising mankind as brethren, and as objects worthy of love. Not only are the moral sentiments, but the intellectual faculties, of the Christian cultivated. Reason is his; and the Christian is exhorted to give to every one who asks, a reason of the hope that is in him; and Paul exhorts Titus to use sound speech (or, as the original means, sound reason). that he who is of the contrary part may be ashamed.

The Christian stores his mind well with the word of God, which he finds to be the sword of the Spirit, by the aid of which alone he is able to withstand his enemies. He grows daily in grace, and in the knowledge of his Lord and Saviour Jesus Christ; and the effect of such

knowledge is, that he lives not to himself, but to God's glory. And should he happen to fall into any open sin, his brethren are at hand to deliver him in the spirit of meekness. In this mutual support we see the principles of our nature acted upon; we behold that the effects intended to be produced by this communion of spirit are such as, according to this nature, must be. But this harmony between the preceptive part of Christianity and our mental constitution, as established by Phrenology, will be more fully seen upon a particular examination of the individual precepts of Christianity; inasmuch as it will be found, that the faculties, demonstrated by the above science to exist as primitive faculties, have precepts given for their proper direction, their existence being thus indirectly recognised by the Author of the Christian system. system we are taught, "not to look upon women to lust after them." This preceptive command teems with Benevolence; and, if attended to, the eye of modesty, and the heart of the feeling, would not be hurt by the sight of those poor creatures, lost to all sense of shame, who parade our principal streets at noon-day. But Christianity has a positive, as well as negative precept regarding the exercise of this faculty: "Love your wives," holds a place among its dicta; and

the apostle Paul commands, "Let the husband render to the wife due benevolence, and likewise also the wife to the husband." 1 Cor. vii. 2. The chastity of expression, or the natural justice of the command, it is difficult to say which to admire the more. And the same apostle gives another preceptive command, "But if they cannot contain, let them marry; for it is better to marry than to burn:" and this is given on the account, that "every man hath his proper gift of God, one after this manner, and another after that." 1 Cor. vii. 7, 9. The apostle thus recognises the fact, demonstrated by Phrenology, that some men have the faculty of Amativeness more powerful than others, and gives advice to them thus endowed, so suited to their condition, and so minute as regarding their happiness, that that mind must be but very partially enlightened. who cannot see in all this the wisdom of a kind God, providing for the comfort of His creatures.

The faculty of the Love of Children or Philoprogenitiveness is directed by Christianity into proper channels. "And ye fathers, provoke not your children to wrath; but bring them up in the nurture and admonition of the Lord." Ephes. vi. 4. The discipline which parents are to use towards their children is

abundantly pointed out in the Proverbs. "Correct thy son, and he shall give thee rest; year he shall give delight unto thy soul? "Chapi xxix. 17. "Chasten thy son while there is hope, and let not thy soul spare for his crying? "He that spareth his rod hateth his xix. 18. son: but he that loveth him chasteneth betimes." xiii. 24. And this and other duties towards children are urged upon parents by the gracious promises, "Train up a child in the way he should go, and when he is old he will not depart from it," and "He shall give thee rest; 'yea, he shall give delight to thy soul;" whereas, on the want of attention, the following evil: arises, 41. A child left to himself bringeth his mother to shame." And we are taught, moreover, "He that careth not for his own, especially those of his own house, hath denied the faith, and is worse than an infidel." And those persons, who go about as busy bodies, tatlers, are pointedly condemned, and commanded to stop at home, and mind the affairs of their own house.

These faculties and Adhesiveness are, as the Phrenologist knows, and as the other reader will perceive, from what has been said, engaged in concerns principally domestic. They are the links which tie the hearts of a family together. To prevent, however, these links being drawn

too tight, and thereby rendering the laceration which must take place at death excessively violent. Christianity adds. "He that loveth father or mother, wife or children, more than me, is not worthy of me." The Saviour is referred to. This supreme object keeps all others in their proper place; and when it is remembered that Jesus Christ can never cease to be an object of attachment, since neither life nor death, things present nor things to come, can separate the Christian from the love of his Lord; how reasonable is it, that the strongest energies of Adhesiveness should run out in that quarter? The intellectual faculties and Moral Sentiments will give to their fellow, thus journeying, their approving smile, their strengthening support. The one class, seeing the propriety; the other, feeling the pleasantness of this direction.

Christianity guides Combativeness into the proper channel by dictating, "Contend expnestly for the faith once delivered to the saints:" "Fight the good fight of faith."

It points out the proper course to Destructiveness, when saying "Be angry and sin not;" and the existence of a natural disposition, leading to anger, is acknowledged by Jesus Christ, when he forbids any one to be angry with his brother "without cause." We see himself angry against the Scribes and Pharisees for their hypocrisy, styling them "vipers;" and, under the influence of this faculty, guided and impelled by a zeal for God according to knowledge, the Son of man drove the sellers and buyers with a thong of cords out of the temple, overturning, at the same time, the tables of the money-changers, and stating, in the justification of his conduct, that they made his "Father's house a den of thieves."

Acquisitiveness is guided by Christianity; which, though condemning the making haste to be rich, and commanding "Lay not up for yourselves treasures on earth, where moth and rust do corrupt, and thieves break through and steal," does not leave the faculty without a direction, inasmuch as it requires of its disciples to "Lay up treasures in heaven, where neither moth nor rust doth corrupt, and where thieves do not break through and steal." At the same time, Christianity does not tell its followers to neglect their worldly concerns; no, but says, "Be not slothful in business; fervent in spirit, serving the Lord." Let the scholar compare this beautiful balancing of directions, with the directions which philosophers have given to this faculty. Some, he will know, taught their followers to despise worldly honours and riches,

without giving to the faculty demonstrated by Phrenology to exist, any other direction; thus showing their ignorance of its existence: whereas the Bible, pointing out its channel, and condemning its improper employment, recognises both the faculty and its liability to mis-direction; another coincidence between Phrenology and Christianity.

"Secretiveness, another primitive faculty, has its proper course pointed out when Christianity teaches its followers to be "cunning as serpents, but harmless as doves."

Self-esteem is recognised by the dignified character which the Christian is represented as possessing. He is a son of God; an heir of glory; he has a crown; a priesthood; is the temple of the living God; and the apostle appeals to this faculty in endeavouring to convince the Corinthians of their wickedness, and of the necessity of being aware of fornication. "Know ye not that your bodies are the members of Christ? Shall I then take the members of Christ, and make them the members of a harlot? By no means. What? know ye not that your body is the temple of the Holy Ghost, who is in you, which ye have of God, and ye are not your own?" I Cor. vi. 15, 19.

Love of Approbation, another primitive

faculty, is recognised by Christianity. There is an injunction, "Strive that ye may excel;" and the Corinthian believers were told to "desire earnestly the best gifts;" and of still higher directions of this faculty mention will presently be made.

Paul, moreover, speaking of the prospect of being with the Lord Jesus Christ, observes, "And for this reason, we make it the height of our ambition, that whether we be present or absent, we may be acceptable unto Him." ? Cor. v. 10.

Firmness is recognised when the Christian is told to "remain stedfast in the faith;" to "hold fast that which is good."

Thus we see, that every animal propensity, (for regarding the few not noticed, applications from Scripture might be taken), for the demonstration of the existence of which Phrenology has been so much abused, has, in the Scriptures, a direction given.

It is the same with our other faculties. Benevolence has the highest directions. The Christian is taught to do good unto all men; to give offence to none. He is taught to love his neighbours as himself. And his doing good is not confined to temporal things, but extends to eternal objects. His desire to do good has its

highest direction in the wish of, and using the means for, the salvation of men.

- This preceptive part of the Christian system cannot be left without a remark being made on the way in which knowledge is communicated in the word of God. Any one reading the Bible with attention, will perceive that comparisons and parables are the most common forms of instruction. New, it is a fact established by Phrenology, that the faculty of comparison is one with which men are most abundantly endowed; indeed, if any faculty predominates in the mental constitution, it is this. And in the modes of instruction adopted in the Bible we see so striking a coincidence, the parabolical and the like, being these which abound, and which are the proper food of this faculty; a circumstance that cannot be attributed to chance, but must be ascribed to this, that the Author of the Christian system is one intimately acquainted with our frames. These comparisons too are taken from nature, not from art. They are drawn from ebiects known to all: the sun, the moon; the stars, the beasts, the winds, the lightnings, objects seen by all. Thus nature is the handmaiden of grace, and is made to reflect on the lovely face of her sister her own brilliant light.

In general, it may be remarked of the precepts of Christianity, that they are of the widest extent, embracing every diversity of character, and persons in every situation; -- the rich, the poor, the ignorant, the learned, the noble, the ignoble. The system being of such general application, and pretending, as it does, to come from the Creator of all, it follows as a necessary consequence, that its precepts must be so suited to all, that none can put an unjust interpretation upon them. How is this to be done? is an important inquiry: what suits one mind is not adapted to another. Christianity, in all the dignity of being a revelation from heaven, commands the proudest, the noblest, the wisest, the mightiest, to bow down as little children, and receive, with the way-faring man, in the spirit of child-like humility, its instructions. If a system did not come from God, this would be presumption; but so ordering all to be abased, testifies to its divine origin, and immediately points out a distinction between it and all the systems of philosophy, the teachers of which had one set of doctrines for the rich and another for the poor; and by requiring all to hear as little children, who believe all that they hear, the difference of decision arising from different constitution of mind is set aside.

Having thus considered this mean of enabling the Christian to resist the trials to which he will be exposed in passing through the world, the next will be pointed out.

One of the most powerful means of stirring up men to run in the career of duty, is the setting an example. Look at Napeleon at the Bridge of Lodi; Alexander at the city of Tyre. Example appeals to our Imitation, Self-esteem, and to Love of Approbation, which faculties excite the desire of doing what has been done. It seems natural to expect that the God of our nature would not, in a system coming from him, let this powerful motive to action be disregarded. No; the Christian has a glorious example, leading him to aim at perfection. He sees in Jesus Christ his original, and all that he strives is to be made like Him. He beholds Him as the Catotain of his salvation, made perfect through sufferings. He holds the world as a theatre of war (carried on, indeed, on his part, with weapons of peace), on which are unfurled the banner of Him he loves, and the flag of the evil one. Taking his place under the former, he is comforted by the promise, that through Him he will be more than conqueror; and beholds his own victory in that of his leader. Yes; looking forward by Hope to a future day, the Christian

beholds in lively portraiture the triumphs of his Lard; he sees the enemies of his King following as captives; experiences the sweatness of the odours of his Priest's ATOMING BLOOD; views the triumphal entry of his Captain into the heavenly Jerusalem; beholds the gates of Zion open; hears the resounding and glarious question, "Who is the King of Glory?" and joins in the choral reply, with innumerable spirits, "The Lord strong and mighty, the Lord mighty in battle. Lift up your heads, O ye gates; even lift them up, ye everlasting doors; and the King of Glory shall come in." Paalm kriv. 8, 9. Thus the apostle felt, 2 Cor. ii. 14.

The remaining means recognised in the word of God, as enabling the Christian to resist temptation, and to overcome the many and powerful enemies with whom he has to contend, consists of rewards and punishments.

^{*} The meaning to be attached to this important, this grand, this too often ignorantly quoted phrase, will be understood by the reader if he will undertake the delightful duty of investigating the sense in which blood is used throughout the Scriptures; to aid him in this, it will be well to examine the figurative meaning of water and wine as used in the Scriptures. For the figurative meaning of water, see number viii. of the Christian Physician and Anthropological Magazine, published by E. Palmer, 16, Paternoster Row.

In a human government it is impossible to give virtue a positive reward. Vice, it is true, may be punished; and punishment* is the only sanction, a powerful one indeed, possessed by an earthly government. Individuals may be rewarded; but the ribbon and the star await only a few. For whence are rewards to come but from a tax upon the community? and whence the means to bestow a premium on every one who abstains from murder, theft, and other misdeeds? But the faculties recognise, as the God fitted for adoration, a Being in whom Omnipotence is a prominent feature. They acknowledge that in Him there exists a power to reward all. In his very attribute of Omnipotence, they behold an exhaustless treasury to employ in rewarding those who do well, and in punishing them who do ill. In the Christian system God is represented as dispensing rewards and punishments; and these are so many motives appealing to Love of Approbation, Acquisitiveness, Cauti-

^{*} Punishment governs all mankind; punishment alone preserves them; punishment wakes, while their guards are asleep. The wise consider punishment as the perfection of justice. Punishment is an active ruler; he is true manager of public affairs; he is the dispenser of laws, and wise men call him the sponsor of all the four orders for the discharge of their several duties.—On the Military Class, Institutes of Menu, Vol. iii. p. 243.

ousness, and Hope, faculties existent in our nature. To the first three the glorious prospect held forth in the Bible appeals with a mighty energy; while the dismal futurities that await those who disobey the commands of God appeal to the last mentioned faculty with a peculiar force. And to point out the nature of the former prospects, images the most glorious are employed; while, on the other hand, to show the terrors of the other condition, the most dreadful similitudes are used. Indeed, to exhibit the happiness of the good, every thing lovely, beauteous, and grand in nature and art is collected; and to show the misery of the bad, every object the most horrible, terrific, and unpleasant is presented.

These means, recognised in the Christian system as necessary for the effectual aid of man, imply an excessive weakness on the part of him by whom they are needed. Indeed, this peculiar state of human nature, proved by phrenology in demonstrating that man is of necessity evil, is one which Christianity most boldly avers, but against which all philosophy but phrenology rises in opposition. Indeed, this humiliation of human nature philosophers have ever held to be opposed to the practice of what is good; and they, in their wisdom, have thought fit to adopt another plan; and have, in their pretended

anxiety for the interests of mankind; talked loudly about the dignity of human nature. is a delightful thing to see that phrenological science testifies to the accuracy of Christianity: in testifying, that while there is a dignity in the constitution of the human being, as compared with the constitution of other animals, it at the same time maintains, that those parts of man's constitution in which he is common with the brutes, have gained a lamentable preponderance over those which, if preponderating, would make him dignified by making him to be a man. MAN is a dignified being, but man is undignified because he is not man. Indeed, it is a matter continually pressed home on the Christian's mind, that he is weak: and on this account he is told to flee from temptation. He begs of God to "lead him not into temptation;" and is taught, that "as the branch cannot bear fruit of itself. except it abide in the vine," no more can he, except he abide in Christ. Indeed, without continual faith in Christ, he can do nothing, so strong is the evil tendency of his nature; and though the apostle could do all things, as he himself says, yet it was "through Christ that strengthened him."

Thus the means, which Christianity proffers as such as will enable the Christian to come off

more than a conqueror, have passed in review; and the coincidences which have been pointed out between them and the faculties on which they act, existing in the mind, are so numerous as to lead to the conviction, that both Christianity and man's self are the work of the same author.

That this conclusion is just, and that the means are efficacious to the end, will be more fully established by contrasting these means with those of philosophy; and, secondly, by some examples of their efficacy. The philosopher subdues his meaner passions by the power of reason: of this notice has been taken. His selfesteem is his chief defence against enormities of every kind; and, though he pretends to despise the approbation of his fellow-men, it is for this in a great measure, that he is outwardly moral. He adores himself, a more corrupted object of worship than the stocks and stones before which the savage bows. These two faculties, combined with his Moral Sentiments and his Intellect. have to resist the impetuous torrent of his animal propensities. A weak barrier indeed!

This method of inducing morality is one which man has devised; and which, like all other human institutions, must, from its very nature, be confined to a few; because by few the opportunities of the philosopher are possessed.

What must become of the poor, the ignorant; the hard-working class of society? How must they subjugate their passions? They have no philosophy, no languages, no sciences, no opportunities of studying the fine arts. Some other plan must be for them. Christianity suits their case; and produces in them a higher morality than that possessed by any philosopher. It is by the belief of a testimony, which is attended with a love of God as its consequence. This is the foundation of real morality; and, when we review the commencement of a holy life, and the means for its successful prescention, as exhibited in Christianity, and consider the source of philosophical morality together with its effects, we see how the apostle might well ask, " Hath not Ged shown the wisdom of this world to be foolishness?". Indeed, contrast the means of defence belonging to the philosopher with that of which the Christian can boast. Weigh the relative powers of the coat of mail, formed by Selfesteem and Love of Approbation, in which the the philosopher is ineased, and of the "breastplate of faith and love," and of the "helmet, the hope of salvation." Estimate the resisting influence of the sayings of antiquity with the word of God, "the sword of the Spirit." Consider whether it is better to have the armour of philosophy, or "the whole armour of God," in

whether, "to have the loins girt about" with philosophy, or "with truth;" whether to have "on the breastplate of righteousness," or the targe of pride; whether, "to have the feet shod with the preparation of the gospel of peace;" or with the Stoical doctrines of philosophic speculation; whether to use the language of "prayer," or the proud atterance of determined independence. Phrenology says that we are weak, evilly-inclined creatures; and, being such, approves of the Christian's armour.

The philosopher may, perhaps, boast that he has before him, as an object of imitation, Virtue. But what is this? She is a plaything to be looked upon in the days of prosperity; but, in the days of adversity, Hope turns away from her with disgust. The Stoics may deay what they like; but their boasts are insults upon human nature, and contradictions to common experience. Their conduct belied their doctrines. Brutus, one of their noblest, cried in the agonies of death, that Virtue had forsaken him.

In the illustration of the efficaciousness of the means which Christianity recognises, a few examples may be given.

One of the most striking circumstances connected with the promulgation of Christianity is, the meanness of its first preachers. Several of them were but fishermen; men of low birth, having little education; and, as such, generally very obsequious to the great. Yet such persons were boldly to state the truths of Christianity before kings and rulers. Among the number, Peter stands pre-eminent, not only for the conspicuous place which he holds, but for his forwardness. No doubt he was a blunt, warmhearted man; meant to do all that he said, not aware of the difficulties in the way of putting his resolutions into execution. Under the influence of this warm-heartedness, he asserted, that though all deserted his Master, he would not. But Jesus knew the nature of the fear of man. and seeing into futurity, warned him that he would deny him. Peter followed his Lord, who, after being betrayed by Judas, was taken before the Chief Priests. Peter attended; and, when warming himself by the fire, a person charged him with being one of Christ's disciples; he denied it. And so influenced was he by the love of the approbation of his fellow-men, that he even testified to his ignorance by an oath. Yet this same Peter, after being strengthened from above, and learning to put all his trust upon God, stood before the Jewish Sanhedrim, and, in spite of their threats, boldly stated, that he

was determined to preach the gospel; adding, "whether it be right to obey God or men, judge ye!" Here we see the same faculty, Love of Approbation, differently directed, and the effects are widely diverse. Indeed, I know no change more striking; when directed to man, Peter lied for fear of a menial servant; when directed to God, all the terrors of the Jewish Sanhedrim could not move him. Peter was Peter with his faculties misdirected in the first case; in the second, was Peter with his faculties in proper direction.

Who has ever equalled Paul? What sufferings he endured for the sake of Christ; and the almost miraculous labours that he performed in testifying to the truth in Christ Jesus; and the glory he took to himself in being so honoured, as to be permitted to suffer in defence of the truths he stated, are acknowledged by him to have sprung from faith. Indeed, in writing to the Hebrews, he gives a long list of those who had, through faith, subdued kingdoms, wrought righteousness, obtained promises, stopped the mouth of lions, quenched the violence of fire, escaped the edge of the sword, out of weakness were made strong, waxed valiant in fight, turned to flight the armies of the aliens, women received their dead raised to life again; and others were

tortured, not accepting deliverance; that they might obtain a better resurrection. Heb. xi.

Many might be the instances adduced from those living in later times, but this is not necessary. The best reference is the part mentioned above. But if any wish others, I would refer them to Biographia Evangelica, by Myddleton, and to the History of the Waldenses, by Jones.

In coming to a conclusion, it is trusted, that the sixth proposition is completely proved; and that, so strict and so exact is the coincidence between Phrenology and Christianity, as to lead every unbiassed mind to conclude, that a series of evidences to the Christian system has been made out, quite satisfactory of the general statement, that the Bible is the word of God.

If some, however, do not think this, they must have the candour to allow that the views introduced throughout these pages have tended to show how science can be applied in the elucidation of Scripture; and to impress on the mind, that the only person "who overcometh the world," is he who believes that Jesus is the Son of God. 1 John v. 5.

Another important truth which this investigation has tended to show is, that adoration, unless guided by the intellect, and given birth to by the heart, is vain and unacceptable in the sight of God. And it will, it is hoped, be seen, that that excitement of devotional feeling, produced by a solemn aisle, by grand music, or by the fervid eloquence of a preacher, is no more true devotion, than are the hideous noises with which the inhabitants of another quarter of the world welcome the visit of an eclipse. Indeed, if the reader, on rising from the perusal of this work, should be determined to cast aside all confidence in frames and feelings; to call no man master on earth; and to read the word of Trath for himself, the writer will not have laboured in No: but will look forward in confidential delight, that the person so stirred up, will, from beholding "as in a glass the glory of the Lord, be changed into the same image from glory to glory, as by the Spirit of the Lord." 2 Cor. iii. 18.

To the Christian who may peruse these pages, the author begs to point out how much is dependent upon each one exhibiting the influence of that belief which he professes. The gospel, if believed, must, as has been shown, produce the effects stated. If it does not, then it may with certainty be concluded, that the life is not by faith. From the blinding influence of established religions, it happens that many assume the name of Christians, who do not believe in

Jesus Christ; they believe another gospel, or else do not understand the one to which they have assented; for, in the parable of the sower, only those brought forth fruit that understood the word preached. This may anticipate an objection, drawn from the deficiences and even flagrant wickedness of professed Christians, that the gospel does not produce the effects stated. The followers of Christ should be living epistles, known and read by all men.

Theophrastus remarks, "that the whole aim and credit of philosophy consisted in obtaining a happy life." This may be the aim of philosophy, but it is the credit of Christianity to induce and secure happiness. Indeed, the belief of the gospel, the first step in Christianity, brings man into reconciliation with God, the Father of mercies, and the God of all consolation. And thus secures him joy, both in life and in death.

To conclude: Christians are reminded, that their great Exemplar desired his contemporaries, if they would not credit his testimony, to believe him "for the very works' sake." And to the person not a Christian, a kind voice would hint, that as every truth testifies to Christianity being divine, it becomes him to study and to attend to this revelation from God.

J. Haddon and Co., Doctors' Commons.

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PHRENOLOGY

CONSISTENT WITH

SCIENCE AND REVELATION

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CONSISTENT WITH

SCIENCE AND REVELATION.

"Why sensation, or other affections of mind, or the action of mind upon muscles, should arise from the existence or organization of any matter like that which composes our corporeal frame, we feel ourselves utterly at a loss to understand, because the fact itself is singular, has nothing with which to compare it, and cannot be arranged in that order which we consider as constituting cause and effect. On this point we are obliged to confess our utter ignorance in this enquiry. therefore, we necessarily look to the influence of some natural cause, capable of a poculiar application of common powers, or the operation of some agent whose powers were wholly confined to the production of that singular effect on parts possessing an appropriate structure. As, however, our Creator was pleased to provide for these purposes an apparatus so large, and consisting of such variety and complication of parts, it is reasonable to expect that each of those parts and forms must have its own particular capacities essential to the due performance of the several functions which appertain to mind. relation it is our business to investigate, and its discovery is by no means a hopeless task."-Dr. C. Parry, vol. i. p. 128.

It is the testimony of all experience, that the laws of nature have never been discovered by the mere exercise of man's reasoning powers; but that in the acquirement of positive knowledge, we have been invariably compelled to relinquish theoretical induction, and to found our conclusions upon the materials which simple observation has afforded. No other source of real information exists, save what we derive from direct revelation, and the latter only furnishes us with ultimate facts, which we are called upon to believe rather than to examine. The early history of every department of human investigation confirms the statement we have made, and the recent progress of science, either as regards our knowledge of mind or matter, is entirely attributable to the rejection of unsupported hypothesis, and to the pursuit of knowledge in the way which nature has prescribed.

In fact, acquaintance with general laws can only be acquired by patient and accurate attention to particular facts, and every attempt which has yet been made to set aside this essential condition of our mental constitution, has been followed by ultimate failure and disappointment.

How very vague and imperfect are our efforts to realise conceptions disassociated from the evidence of the senses! And how fluctuating their nature with the changing character of the mind in which they originate! Men differ for ever when describing their ideas of spiritual or abstract existences, each moulding his conceptions to the peculiar constitution of his own mind, and creating a system, imperfect as a representation of himself, and still less to be regarded as a transcript of the experience of another.

The systematising of mental phenomena by reflecting

upon the operations of our own thoughts, while it has naturally engaged the attention of the profoundest intellects, and been the source of many attractive and ingenious speculations, has certainly never been attended with those beneficial results, both to the investigator himself and mankind at large, which, from the interest and importance of the subject, we might naturally have expected; and this because each philosopher has attempted to write the history of mental acts from the partial knowledge he has obtained of himself, and upheld the peculiar constitution of his own mind, as the experience of mind in general.

It must also strike every reflecting observer, that the conditions of thought necessary for such abstract pursuits, involve but a partial exhibition of the mind; either excluding many feelings from observation which we really possess, or giving an undue preponderance to others whose activity we habitually cultivate. Man in the privacy of his closet is quite other than man in the strife and bustle of active life; the predatory savage, though elementarily the same, widely differs from the unimpassioned and speculative philosopher; and were each to pourtray the picture of his inward consciousness, and delineate the workings of his intellect and feelings, how different would be the system of each, and how fallacious the general application! On both sides much would be overlooked, and even the same faculties or powers so unequally described, that minds differently constituted would accuse both of exaggeration or omission, creating perhaps another system more consonant with their individual peculiarities, yet equally incapable of being regarded by other minds as the faithful picture of their own.

The feelings and motives most active and habitual with ourselves, would pervade and modify our conclusions, and certain states of mind, which, from their frequent repetition, could scarcely fail to be regarded as necessary accompaniments of mental activity in others, would be mistaken for elementary powers. The natural consequence must be, that each new hypothesis would rather describe the tone of thought of its propounder, than be delineative of mind in its universality, and though containing much truth, because derived from materials in some form or other common to all, would yet be incapable of general admission, or more than personal application. It need not be argued that the description of any class of animals from a single specimen must be very incomplete, and of necessity fail to include the numerous and important varieties of which the race might consist; and any system of mental philosophy, founded upon the analysis of any single mind, can only be descriptive of minds similarly constituted, and necessarily be imperfect as a type of mind in general.

The history of metaphysics furnishes constant illustrations of the error we are adverting to. One philosopher tells us that selfishness is the motive of our actions; another, the love of approbation; a third, the principle of utility; a fourth, the sense of duty; and yet each

supposition is at once refuted by the inward consciousness of other minds, such assumptions being simply the expression of individual peculiarities or theoretical requirements, and are at once felt to be erroneous by those whose faculties are differently combined.

The number of our intellectual powers has ever been a much debated question. We read amongst the ancients of a sensitive and vegetative soul. Aristotle divides the mind into the passive, active, speculative, and practical intellect; Bacon acknowledged six elementary powers; Hobbes two; Descartes four; Diderot two; Condillac seven, &c. &c.; plainly proving that the method of observation was imperfect, each system savouring more of theoretical induction, than of conclusions deduced from extensively observed facts.

Then we have the much debated subject of innate ideas, and see a Plato and a Descartes arrayed against a Bacon, a Locke, and a Condillac.

The classification of our faculties is equally vague and unsettled; in short, in every department of metaphysical science we are deluged with differences of opinion; and notwithstanding the subject has occupied the noblest intellects which have ever adorned humanity, no system of mental philosophy, with a single exception, has ever been proposed, which is capable of any general practical application. The reason of this must either be the inscrutable nature of the enquiry, or a wrong method of investigation. That the subject is difficult no one can deny, but in estimating how far it is really

open to enquiry, we must first consider to what extent we have availed ourselves of every means by which our knowledge might be increased, and whether we have not unwittingly been accustomed to regard mental phenomena as incapable of being submitted to the same method of observation, which has proved more or less successful in the elucidation of every other function of the body.

What should we now know of respiration, had our enquiries been limited to our internal consciousness of the function? And how imperfect our conceptions of the real nature of the act, if only known in the complicated form which it assumes in ourselves! To obtain a philosophical insight into the modes of acting of our different organs, it is indispensable not only to study functions, but also the instrument of those functions, and, what is of nearly equal importance, to trace both the one and the other through every grade of organisation where their presence can be recognised; -to discover their essential elementary character, and to view them apart from those various combinations which obscure their modes of acting in the higher orders of created beings. What beautiful unity and simplicity are now revealed through the light of comparative anatomy, where before all was confusion and hypothesis! with what different feelings do we contemplate the lengthened chain of organic existence, or even the multiplied phenomena of the inanimate world, now that we have begun practically to admit the principle, that, independently of direct revelation, we can only profitably

investigate either ourselves or the world around us, by giving to facts a precedence over every induction of unassisted reason, and by restricting the application of our reflecting faculties to the contemplation of the materials which have been accumulated by diligent and unprejudiced observation.

We would not curb those intuitions of genius, which often, in one fleeting moment, strike out paths where inferior minds may long continue profitably to travel, but we assert that it is not within the compass of human power to be conscious of the attainment of truth by any other means than those to which we are now adverting. Genius may anticipate what observation ultimately establishes, but the truth of its inspirations can never be primarily ascertained; it pauses, as it were, in its onward course, for the slower but surer progress of less gifted minds, and only realises its own conceptions when it can view them as the expression of the facts which others have accumulated?

It is, therefore, not difficult to discover the cause of the comparative failure of our efforts to establish the science of mental physiology, because the materials to which induction has hitherto been applied, have been palpably insufficient for the purpose; and though every metaphysical system has involved a certain proportion of truth, having availed itself of one of the means which we must pursue for its attainment, viz., the analysis of internal consciousness, yet, as a whole, each has been deeply tinctured with error, inundated with hypothesis,

and has succeeded in presenting but a partial and distorted view of our mental and moral history. It becomes, therefore, a question of the deepest interest, whether we can attempt to elucidate the phenomena of mind on the same principles, and by adopting the same means which have successfully guided us in every other department of knowledge; because, unless we connect mental phenomena with physical conditions, their investigation evidently cannot be undertaken with at all a proportionate probability of success. If they are dependent upon physical conditions, these at once become a leading object of our study; and it is only when they shall have been fully and fairly examined, that we can properly infer that we are in possession of data from which a rational and abiding system of mental philosophy may be con-It is from severing the function from the organ, and from making an individual the type of the species, that our errors have originated, and if we would avoid their indefinite repetition, we must make the study of the organ of the mind, in all its developments, the basis of our philosophy.

In accordance with these principles we may remark, that if the brain be the instrument of our intellectual and moral powers, its structure must be in relation with the number and nature of those powers; if the mind has primitive and independent faculties, a special cerebral organisation, judging from all known analogy, must exist; and if we can discover (not imagine) the particular cerebral structure appropriated to the manifestation o.

each faculty, we can no more question the speciality, both of the organ and function, than we can doubt the existence of our external senses, or of the distinct organs on which their exercise depends.

We must not foolishly hope to penetrate the mystery of how mind is associated with matter, or what it consists of in contra-distinction from matter; but simply devote our powers to the determination of whether it is not possible to seize the relations which exist between the number and degree of our moral and intellectual faculties and our physical organisation; and we again repeat, that this attempt ought to precede every effort to systematise as to the number or nature of our mental functions, and be only relinquished when experience shall teach us that we are here excluded from those means of observation which have extended our knowledge in every other department of nature.

But happily the investigation we are alluding to, has been undertaken, and, we do not hesitate to say, with a success which its gifted originator could never have anticipated.

To the results obtained we would now venture briefly to direct the attention of the enquiring and candid reader, believing, that while their truth is admitted by many minds which are foremost in the ranks of science and of literature, they are as yet but very partially appreciated by the great majority of the thinking portion of mankind, and that a feeling of prejudice or ridicule is still often entertained and expressed in reference to the physiology of the brain, arising both from a want of information as to the value and extent of our knowledge, and from not duly considering the importance of every thing calculated to furnish us, with an improved system of mental philosophy:

We cannot pretend to give more than a brief outline of so interesting and extensive a theme, aiming at he coming pioneers rather than instructors to those who have not as yet made cerebral physiology a subject of their direct and serious attention.

That there exists an intimate connexion between mental phenomena and organisation, is perhaps most satisfactorily proved by referring to the daily and hourly experience of each individual. It might, indeed, with justice be asked, what do we know of mind apart, from organisation? Every manifestation of its presence is conveyed through material agencies, and we are not in possession of a single function by which we can perceive other than physical existences. The highest flights of creative genius fail to disrobe of a material covering the fairest beings it can fashion, and our conception, of spirit is nothing more, when analysed, than indefinitely attenuated matter. The natural history of mind intimately links it with corporeal conditions. It is as infantine as the body; it grows with its growth, and strengthens with its strength; it becomes enfeebled by age, and falters with its declining powers. There is not a vibration of the frame with which it does not sympathise, and by universal experience bodily and mental health have

been indissolubly associated. The horrors of the dvspeptic, the delicious reveries of the opium eater, the frightful ravings of the maniac, -what are they but the consequences of certain bodily conditions? And if terror may be assuaged by a narcotic, if fancy may be stimulated by the grape, if intellect may be arrested by a blow, can we for a moment hesitate as to the close union which exists between our mental acts and our bodily organisation. But this conviction, however general it may be, is too often sterile in its effects; we stop short at the commencement of the enquiry, and do not, either from fear, prejudice, or indifference, trace it to its legitimate consequences. It is, however, essential to be deeply imbued with this primary and so demonstrable a truth, in order to pursue the investigation with any rational expectation of success.

If mind, then, is so interwoven with organisation that we can form no idea whatever of its nature but through the intermedium of the latter, the laws or the conditions by which this mysterious union is regulated, become at once a rational and intensely interesting subject of enquiry;—rational, because embracing the study of phenomena within the pale of human observation, and interesting, because tending to make us acquainted with incomparably the noblest of all our attributes. It is not, however, by philosophising in our closets, or by our own imaginings, that we can ever hope to arrive at any positive or valuable results, and every system which has emanated from such a source, only proclaims the feeble-

ness of man's power, and the poverty of his efforts when striving to become the interpreter rather than the observer of nature.

Almost every organ of the body has been at different times selected as the seat of intellect or passion, and man's highest functions have been most conveniently shifted about, and made to occupy any portion of our frame most conducive to the theory advanced, most compatible with our hypothetical necessities, or most gratifying to an exuberant fancy. When we recal the names of Hippocrates, Plato, Aristotle, Galen, Willis, Boerhave, Haller, Bichat, with many others, and reflect on their fanciful and erroneous suppositions as to the physiology of the mind, we cannot but be convinced of the utter vanity of mere theoretical deduction, and of the absolute necessity of limiting ourselves to the determination of what is, and not to what we may imagine to exist.*

Independently of any evidence founded upon the universal experience of mankind, or any other sources of mere inferential probability, we possess proofs of the brain being the organ of the mind, as positive and direct as any we can refer to in favour of the eye being the

^{*} The notions of the vulgar are often more accordant with nature than those of polite scholars. Thus a stupid person is called a numb-skull, a thick head, or said to be addle-pated—badly furnished in the upper story: while a talented person is said to be strong headed—long headed—to have plenty of brains; a madman is said to be crazy—to be cracked in the head—touched in the noddle, &c.

organ of vision. To some of these we shall now briefly advert.

By removing the hemispheres of the brain, life is not always extinguished, and an animal will continue for months to exercise every function which characterises it in a state of integrity, with the exception of its mental or voluntary acts, precisely as if vision had been the function alone deficient and the eyes the organs alone destroyed.

Mental acts have been instantaneously arrested by the pressure of the finger on the brain; and during mental repose and activity such changes have been seen in the workings of this mysterious organ, as have induced the greatest of British surgeons to declare that tranquillity of mind is an indispensable condition for the cure of injuries of the brain.

There is no instance on record of mind being manifested without a brain, and idiotcy is inseparable from a brain of certain dimensions.*

The organisation of the cerebral mass, and the development of mental power, are in the vertebrated classes constantly in relation with each other, and it is in the structure of the brain that we can especially discover a superiority in man's conformation over that of the inferior animals.

There is no other organ but the brain whose injury

Persons having a brain weighing but one and a half pounds are invariably idiotic.

or removal directly interferes with our mental functions, unless life itself be involved; and delirium or mental aberration is universally regarded as a symptom of cerebral disturbance.

It is, therefore, absolutely demonstrable that the brain is the instrument of thought and feeling, and if so, we may safely conclude that it is admirably adapted for the fulfilment of its important functions.

We would also observe, that in no department of nature do we find an instrument selected for the manifestation of a particular power, and yet all proportion be violated between the intensity of the manifestation and the conditions of the instrument; indeed, such a fact, did it exist, would to the eye of reason virtually set aside the utility of such an instrument, and render the power independent of its existence. We know, in fact, nothing of powers or functions but as associated with particular forms of matter, and whether we speak of gravitation, cohesion, affinity, electricity, magnetism, or vital acts, we cannot practically separate the phenomena from the material or organs through which we become conscious of their presence; though it would be very unphilosophical to infer that the union was necessary, or their nature identical.

Again; it is a fact beyond all disputation that mental operations not only vary nationally and individually, but that they are, to a certain extent, peculiar to age and sex; that our faculties are multiple and various in their character; that they are combined in every possible

proportion, and that they are capable of single or collective activity. It is equally certain that the physical conformation of man's head presents infinite variety, and that there are particular forms characteristic of certain races of mankind. It is also a fact that men's heads are not so much distinguished by variations in absolute size. as by changes in the development of particular regions of the skull, which vary at different periods of life, and coincide with a succession of changes in mental delopement. Cuvier, the most celebrated of modern naturalists, says, "It appears that there are always certain relations between the faculties of animals and the proportions of the different parts of the brain. Thus their intelligence appears to be always great in proportion to the development of the hemispheres and their several commissures. Man has these parts thicker, more voluminous, and more complicated than other animals, and as we recede from man, they become thinner and more simple. In like manner man excels all other animals in intelligence. "It appears even," he continues, "that certain parts of the brain attain, in all classes of animals, a developement proportioned to the peculiar properties of these animals, and one may hope that, in following up these researches, we may at length acquire some notions respecting the particular uses of each part of the brain."

If the brain be, therefore, the instrument of the mind, it must, unless it prove an exception to all other organs of the body, be adapted to each special mental mani-

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festation, and it would be quite as rational to suppose the same eye to possess different powers of vision, as to imagine the same brain acting as the organ of different minds. The mind is also not only multiple in its faculties, but contradictory, if we may so speak, in its operations, and the brain must equally be composed of organs adapted to these several powers; unless, indeed, we should prefer supposing the same organ to be at once the instrument of benevolence and anger, of attachment and hate, of veneration and blasphemy, of hope and despondency, in short, to be acting in opposition to every other known law of the organic or inorganic world,...an idea too improbable for a moment to be entertained. Such a view of the brain would, in fact. be tantamount to proving the independence of cause and effect, and that man might think as well without as with a brain, an admission which, however it may gratify certain vague spiritual notions, is quite as contradictory to all experience, to all facts, as that man can see and hear as well without as with the organs of hearing and vision.

The distinctness of our external senses, which are certainly in their functions in close contact with our thoughts, would strongly imply the multiplicity of our cerebral organs, for it would be much more easy to suppose that modifications of touch (to which all the senses may be referred) might have been entrusted to a single sense, than that the brain, as a whole, should be the seat of the various and conflicting phenomena of

thought. A similar conclusion is powerfully supported by what we now know of the nervous system; the more we examine it; the more distinct the functions of its several parts become: and to assert that change of function was depending on nervous distribution, and not on special organisation, would now be considered as displaying either the grossest ignorance of physiology and anatomy, or as springing from an obstinate preference of theory to fact. To admit the special functions of the nerves, and to denv distinction of parts and functions to the centres with which they maintain such uniform relations, is, indeed, to be lamentably the victim of hypothesis; and to suppose a difference in the organs of every other function of the body, with the exception of those we term moral or intellectual, is to assume a position which the examination of nature manifestly contradicts.

The structure of the brain would, a priori, imply a multiplicity of organs; it can no longer be regarded as a pulpy homogeneous mass, but composed of an innumerable series of fibres, each one of which might act as specially and independently as organs the most diverse in appearance, and most distant from each other. The remarkable arrangement of the fibres,* their uniform



[•] The intellectual organs are formed of fibres connected with the motory tract of the spinal marrow, the organs of the feelings are formed of fibres connected principally with the sensory, but partly with the motory tract.

distribution, the infinite care which is manifested to secure their imitual communication, as by transverse and forgittidinal commissures, and the complicated but constant connection of certain portions of the brain, can only be rationally accounted for on the supposition of its constiting of a congeries of organs, capable of individual or collective activity, and of entering into every necessary combination with each other. The microscope is daily discovering distinctions in parts hitherto regarded as identical, and we are already enabled to distinguish the ganglionic from the voluntary nerves, the special nerves of sense from each other, and the grey from the medullary matter; and there is no reason at all to suppose that the subject is exhausted.

"The human brain," says Mr. Solly, his but a series of large ganglia, though their close connexion, and the great size of the commissures, give it a degree of complication which we can only unravel by seizing the thread at the simple though perfect type of a nervous system, and never dropping it till it has conducted us through all the various additions made to its fundamental simplicity, up to the perfect but complex organisation in the human being."

^{*}The human brain at one stage of development presents appearances analogous to the brain in fishes; then to that of birds; then to that of the mammalia—and has no convolutions prior to the 6th or 7th month of gestation (as is the case in mature fishes and birds)—convolutions then begin to appear and enlarge gradually to adult age.

That the brain is not a single organ, but a congeries of organs, each manifesting a special function, may, therefore be strongly inferred from physical and analogical examination,—and, in the words, of the later lamented Dr. Fletcher, we are justified in saying, that the extent, the diversity, the energy and complication, of the intellectual operations, are in general, both in man and the lower animals, in the direct ratio of the volume and multiplicity of the brain.

We might enlarge upon the fact of mind being progressively developed as well as the brain itself; of the
various mental powers being possessed in very different
degrees; upon the phenomena of dreaming, insanity,
monomania, see see; but our object is simply to establish a fact, and not to exhaust the evidence by which
it may be supported. We think, then, enough has
been adduced to satisfy the most sceptical of the probable truth of the doctrine that the brain is an assemblage of organs, each charged with a particular function:

Hitherto we have viewed the subject at a distance, and satisfied ourselves with inferential evidence, but we will now torn to positive proofs, and submit them to the calm consideration of impartial minds.

It is palpable to the most superficial observer, that the human head presents an infinite variety of forms, whether we simply look at individuals or nations; also that women have differently shaped heads from men; and that there are very appreciable differences in the size and form of the head of the child and of the adult.

That the heads of animals are also distinguished by peculiarity of form, which not only can be regarded as characteristic of particular races, but as peculiar to each individual of which the race is composed. variations in form must, therefore, be considered as a legitimate and highly interesting subject of investigation; and the attempt to determine their correspondence with, or independence of, any peculiarity of mental manifestation, can surely not be regarded as exceeding the limits of the most rational enquiry. Anatomy proves that there is a correspondence between the brain, the acknowledged organ of the mind, and the outward configuration of the skull; and although this fact is not without exceptions, yet, for practical purposes, and in any large number of instances, the relation in form of one with the other, is such as not materially to interfere with the correctness of external indications.

Now for nearly half a century a prodigious number of observations have been made upon the form of the head in men and animals, in order to ascertain its accordance or non-accordance with particular mental conditions; and though for a long time pursued without reference to the structure or functions of the brain, they have terminated not only in establishing the fact of such agreement between form and function, but have originated a system of mental philosophy, which is the only one the world has ever seen capable of a practical application.

We have already adverted to the reasons why mere

metaphysical enquiry has preved so barren and unsatisfactory, and expressed our belief that, to arrive at any definite and lasting conclusions, we must become acquainted with the structure and functions of the organ of the mind. Let us now briefly direct our attention to the means by which this knowledge may be successfully acquired.

We would commence by observing, that all inferences deduced from experiments on living animals, must necessarily be defective and fallacious, when intended to determine the separate functions of the brain; and we are the more desirous to direct attention to this circumstance, because young enquirers perceiving that experiments of this description have not accomplished the ends for which they were instituted, are at a loss to decide on the real merits of the question, and on the value of results founded upon other means of observation. The established practice with physiologists is to cut away a certain portion of the cerebrum or cerebellum, and to observe the effect. But, we would ask, is it known what is and what is not a separate organ in the brain? Can we be sure of only injuring one organ and not another? Do we act with a previous knowledge of what are the mental powers, and can we determine when one among the number is suppressed or imperfect? Is the animal in a situation to manifest all its mental faculties, or even those which may be left, after having been so operated upon, and is it in our power to excite different functions to activity of whose nature and whose

number we are ignorant? If we experiment on the ground of not knowing the functions of the cerebrum, is it not absurd to expect to discover them by observing the effect produced by the destruction of the very organ whose function we are seeking to detect? If physiclogists are ignorant of the primitive faculties of the mind, how can they assert that a particular power is the sole faculty suppressed or not, and that that particular power and no other depends upon the portion of the brain they have destroyed? They may have removed the half of an organ, or two halves of different organs: the corresponding organ of the opposite side might be entire; in fact, they are in the situation of an individual who, viewing an animal for the first time, endeavours to obtain a knowledge of its physiology by cutting it to pieces. To render vivisection available for the discovery of the function of an organ, the latter must be distinct: its boundaries and distribution known; the possibility of its being injured or destroyed without materially interfering with other organs and functions must be ascertained; and after its removal, we must be able clearly to determine what function is deficient. Now, while these conditions may be fulfilled in the section of particular nerves, they are wholly deficient in the instance of the brain, and we cannot therefore rationally expect to determine the cerebral functions by the means we are now considering.

Pathological observations, though of greater value than the preceding, are liable to many of the objections

already stated, and must be received with great-daution as evidences for or against the functions of particular portions of the brain; but if conjoined with the information derived from extensive physiological research, may prove powerfully confirmatory of the latterni Parsued however, as, with some orare exceptions, the pipave hitherto been, few will be inclined to differ from a recent writer in thinking, "44 that there are scarcely any investi-· gations more unsatisfactory and disappointing in their results, than those which have diseases of the nervous centres for their subject, in reference to a connexion between disordered function and diseased structures" And the reason of this not only depends upon the very imperfect manner in which these difficult enquiries have been generally conducted, but still more from our ignorance of the structure and functions of the brain; from changes in the nervous substance, being, from its very mature, difficult to appreciate; from disease being so seldom limited to a single organ; and from the very important fact of a vast number of functional derangements taking place, and leaving no tangible organic alteration behind. 'Pathological research has, however, uniformly established the fact of the brain being the instaument of thought, and there is no instance on record of the mind remaining wholly unaffected, when the disorganisation had extended to the corresponding points of both sides of the brain.

We are aware that many cases are adduced in which the mental disturbance was less considerable than might have been anticipated, judging from the extent of the cerebral lesion; it must, however, be confessed that the details neither exhibit that knowledge of mental phenomena or cerebral structure, on the part of the narrator, which would justify any positive or safe conclusions. If, however, pathology has as yet done little in localising the cerebral functions, we believe its utility is daily augmenting with the increase and greater precision of our knowledge; and already numerous facts clearly connect mental alienation with cerebral disease, and that in the assumed locality.

Having thus adverted to the reasons which render the analysis of internal consciousness, experiments upon living animals, and the study of morbid appearances, inefficient of themselves as means of discovering the separate functions of the brain, we shall now return to the consideration of another method, which, we have already said, has been extensively employed, and attended with most gratifying success. We again repeat, that this method consists in contrasting particular mental manifestations with the physical conformation of the head, and in endeavouring to determine how far these differences in form, which are more or less palpable to all, correspond to certain mental states or peculiarities; and from the knowledge of function to deduce the form, and from the form to predict the function.

With the question of how far we are capable of discovering primitive faculties, or whether these enter or not into the composition of the mind, the investigator

has nothing to do; his task is simply to determine the accordance of certain mental operations with particular cerebral conformations, let the mental phenomena themselves be either forms or states of thought, compound or simple in their character. And if observation has been sufficiently multiplied to justify us in concluding that such accordance exists, it is evident that, by tracing out this correspondence, we are much more likely to arrive at correct metaphysical knowledge, and to obtain real information in regard to the physiology of the brain, than we can rationally expect from any of the purely metaphysical methods previously pursued. In fact, the study of mind is at once brought within the range of strict observation, and individual conceptions are tried at the bar of an ever widening field of experience. Every mind becomes an object of separate contemplation; each cerebral configuration is individual and peculiar; and the general history both of organ and function is founded upon the same principles which have so successfully directed us in every other department of We must not damp our zeal or anticipations nature. by supposing the necessary number of individual instances to be indefinite, remembering that no science has been founded upon the observation of more than a small number of the facts which it embodies; but such is the uniformity of nature's works, that conclusions thus deduced, are often as stable as they could be, had no single instance been omitted.

The idea of certain parts of the brain being the in-

struments of particular mental functions, is not of recent birth, but it is by modern research alone that the truth of the proposition has been established. And when we reflect on what men had accomplished when left to their own feeble imaginings, and then compare their crude and clumsy speculations with the beautiful harmony and arrangement which have now been disclosed, we cannot but be deeply convinced of the limited powers of our understanding, and of the futility of our efforts to arrive at truth by any other means than what nature has enjoined.

Man's nervous system, and in particular his brain, being but a modified developement of what exists in animals inferior to himself, and the former possessing certain faculties and feelings common to both, it must be at once conceded, that the study of their simpler organisation and functions must be unusually interesting, and highly calculated to elucidate the more complicated manifestations in ourselves.

Now, it has resulted from the laborious and most extensive researches of Dr. Vimont, that a correspondence between cerebral configuration and mental activity, exists in animals inferior to man, and that the amount of the intelligence, and the nature and number of their faculties, are constantly in relation with the size and complication of the brain. Dr. Vimont devoted several years to the observation of a great number of animals, reared under his immediate superintendence; and in 1827 presented to the Institute of France a me-

moir, founded upon the examination of two thousand five hundred heads, belonging to animals of different classes, orders, genera, and species, with the habits of fifteen hundred of which he had made himself acquainted. To these were added four hundred brains, modelled in wax, and more than three hundred drawings of this organ and its osseous covering. In 1836 he published a large treatise, accompanied by an unrivalled collection of six hundred drawings, embracing the study of the brain and skull in man as well as in animals, and confirming in the most conclusive manner the fact of the brain consisting of a congeries of organs, and that the majority at least were susceptible of being appreciated by the external examination of the skull. It may in the minds of some, add to the value of these researches. when informed that Dr. Vimont commenced his investigations as an opponent to phrenology, and became satisfied of its truth by the very facts he had collected for its refutation.

The method pursued by the immortal Gall, whose vigorous intellect and unparalleled perseverance first opened a path to future observers, was of all others most rational in principle, and eminently calculated to obtain the end he proposed. He contrasted individuals with strongly marked mental peculiarities with each other, and sought out, by simple inspection, the points of agreement or difference in their physical conformation. After long years of indefatigable research, he accumulated an unequalled series of facts, demonstrative,

we do not hesitate to say, of the important principle, that the brain is multiple, and that the development of its different parts corresponds to certain mental manifestations. The anatomy and pathology of the brain were also minutely investigated, and he established the former on a footing which it had never previously attained. It is but justice to remark that no conclusions were ever deduced by means more strictly conformable to the Bacoman philosophy than those of the illustrious Gall.

During and since the period of his researches, numerous and highly-gifted minds have followed in the same path of observation, and an amount of labour has been bestowed upon this important enquiry, and a mass of facts has been collected, exceeding all that have ever been brought forward in support of any other physiclogical question. No one can now be acquainted with the actual state of our information in reference to the functions of the brain, and either not oppose to it a blind and unqualified disbelief, or admit that we are in possession of knowledge far exceeding in interest and importance any that we have ever previously acquired; and though it is far from our intention to assert, that our acquaintance with cerebral functions and organisation is no longer beset with difficulties, yet we are anxious to excite the attention of all thinking minds to the fact, that we already know sufficient, not only to stimulate enquiry, but at once to admit of useful-practical application. The data upon which such knowledge is founded address themselves to the daily experience of all, and would long since have been refuted by evidence equally palpable and opposing, were not truth their immutable foundation; and though many difficulties surround the exact appreciation of cerebral developement, and many circumstances interfere with functional manifestation, yet it must be admitted that obstacles to the application of truth are not to be regarded in the light of objections to its reality, obstacles which, in the instance we are now considering, we ought, from the very nature of the structure and functions of the brain, à priori, to have anticipated.

The very term of "voluntary functions," implies control over their activity, distinguishing them from the operations of vegetative existence; we cannot, therefore, expect the same correspondence between organ and function as obtains in those acts necessary for the immediate preservation of life. The variety also of our mental and moral faculties, and the different kind of food by which their activity is sustained, contrasted with the innumerable changes in the circumstances of each individual, would lead us to infer that the cerebral functions would often be very irregularly excited, and, upon ordinary occasions, only partially active. The influence too of education is such, that no safe conclusions as to the positive activity of different powers can be correctly inferred, without having regard to the modifications which their relative exercise has induced; and, in addition to this, if we consider the motives which influence us to cultivate or repress particular faculties, the re-

straint which the habits of civilized society impose, and the insufficiency of the circumstances, by which the great majority are surrounded, to elicit more than a very partial exhibition of the mind, we cannot be surprised if the effect to determine the character from the physical conformation of the skull, should, in many instances, appear to the superficial observer to be incorrect and fallacious. As a general rule, it is not to be expected that we shall ever be able to ascertain with precision, either the deeds or particular thoughts of mankind, but we can rationally expect to discover the inherent capabilities and tendencies of the mind; because, if we know the organs of individual powers, or of different forms of thought and feeling, we may safely infer that the tendency to certain functional activities exists, however these may be curbed by restraining influences from without, or rendered almost passive by internal neglect or deficient opportunity. It must not either be forgotten that mental acts are not so easily analysed as other of our bodily functions; and the discovery of what is or what is not a primitive power, or what form of thought is associated with a particular portion of the brain, can only be accomplished by extensive comparative observations.

Conclusions founded upon cerebral development must also be modified by the presence of those conditions expressed by the term "temperament," conditions which indisputably affect both the amount and energy of the action of all our organs, and whose influence we have only approximative means of estimating. It is also clearly ascertained that the complete development of the brain is not accomplished until adult age, that different parts of the brain are perfected at different periods of life, and that the cerebral substance undergoes other changes than mere augmentation or diminution in volume. It is equally a fact that in old age the alterations in the size of the brain are not always indicated by corresponding variations in the skull, and that the osseous envelope sometimes ceases to maintain its exact relations with the cerebrum.

The appreciation of form and volume in cases of very equal or moderate developement, is also a matter of considerable difficulty, and may not furnish absolutely identical conclusions to different observers; but, supposing this latter obstacle to exist to a much greater extent than it really does, yet if the locality of our organs can be determined in instances of exaggerated or very deficient developement, we may safely admit the principle, if we cannot demonstrate the fact, that " extremis probatis intermedia vera sunt." Notwithstanding, however, the difficulties we have now enumerated, it is beyond contradiction that the leading traits of individual character have been correctly inferred from the examination of the skull in many thousands of instances; that these experiments are being daily made by individuals whose probity and whose science we cannot for a moment call in question; and their united observations are far more uniform and accordant than those we can

adduce in favour of any other contested physiological question.

Different countries have been traversed; schools, prisons, lunatic asylums, have been visited, and they have all confirmed the grand and leading principle that the qualities of the mind may be inferred from the examination of the head; and, let it be recollected, that although the facts are such as may be verified or confirmed by any intelligent observer, yet there is no instance of any individual pursuing the same series of observations and arriving at contradictory results.

That differences of opinion have arisen as to the nature and seat of particular powers, it would be folly to conceal; but the leading principles and the great majority of the facts which Gall and Spurzheim accumulated, have only been additionally strengthened by succeeding enquirers; and to refuse our assent to the trath of these facts because they either baffle our comprehension, refute our theories, or on the ground that their verification is difficult, is as irrational as denying the light of the sun because we discover dark spots upon the surface, or refusing to Napoleon the title of conqueror because the whole world had not yielded to his dominion.

It is important to remember that no system of mental philosophy but the one founded upon physical examination, ever before admitted of practical application; and that no metaphysical enquirer ever previously pretended, or professed by any system whatever, to determine the mental qualities of different individuals in the manner

and to the extent which is now daily effected; and if the effort be successful, the principles by which the judgment is directed must be founded on truth, or we are driven to the alternative of ascribing to charge results which have hitherto baffled the highest efforts of philosophy to attain.

It has already been remarked that the theory of mind evolved by the investigations we have been alluding to, is the most comprehensive and intelligible of any we possess; and when we reflect that it was gradually constructed by observers at different times and in widely distant localities, and that the materials were derived from repeated observation, we possess a guarantee of its truth, and a power of testing its reality, which have ever been wanting in all other metaphysical systems.

In concluding this part of our subject, we would remark, that if an individual submitting his head for examination to a perfect stranger, can receive information respecting himself, which he acknowledges to be correct, and if this experiment can be repeated an indefinite number of times, it is idle to deny the truth or value of the method employed, and absurd to suppose that it can have any other foundation than positive facts for its support; and yet, strange to say, the discovery of the function of a single nervous filament, seems to excite more interest and controversy among the majority of medical observers, than the ascertaining the functions of the brain; and those who have devoted their lives and talents to what is incomparably the most important

and difficult of all physiological problems, have too frequently only encountered ridicule or opposition, academic condemnation, and scholastic contempt. Our estimate of effort is not always proportioned to the value of the object which it seeks to attain, and our respect and admiration for a time are often withheld from those whose labours have most tended to advance the best interests of mankind. The period, however, never fails to arrive, sooner or later, when public opinion acknowledges the force of truth; and we believe a far higher rank will be conceded to those who have so successfully laboured to advance our cerebral physiology, than it has hitherto been their good fortune to secure.

We cannot terminate these very general and imperfect remarks without adverting to some of the Objections which have been repeatedly urged by many pious and learned individuals against the study of mental phenemena in connexion with the brain. By far the most important of which we consider to be the "evil tendency," of such pursuits; it being asserted that they too frequently lead to materialism and fatalism.

In reference to this serious allegation we would advise the prior inquiry—are the facts true?

If they are true, and yet their tendency be necessarily evil, then we must cease to investigate the works of God, lest we should find some flaw in his perfections; we must forbear to employ the faculties with which he has mercifully entrusted us, for fear we should make discoveries at variance with his revealed character; lest man's limited investigations, in fact, should disclose some contradictions in the acts of his Creator. The truth is, that in our pride we dare to theorise upon what we should be content simply to acknowledge as a fact, and we examine nature too often to pamper our poor conceits, and to bolster up our vain imaginings; we cling to opinions as if they were absolute truths, and fortify them with evidence which more extended information would have proved directly adverse to our We can only pity the man who can conconclusions. template the works of God, and rob them of their Author; and it is most absurd to suppose that the detailed examination of the natural world can lead to inferences hostile to those which a more superficial inspection seldom fails to inspire. Such a result appears just as rational as the conduct of an individual would be, who, after examining a piece of complicated machinery, watching its harmoniously adjusted movements, and admiring the beautiful coherence of its parts, should gradually lose sight of the intelligent agent by whom it was constructed, and infer that it was self-existent! If there be in human beings an affecting representation of a mind lost to every function of a healthy understanding, incapable of rising from effects to causes, and of tracing the relations of things-a mind deserted by its rightful guardian, and left the unprotected victim of every wild

delusion—it is to be found in him, who possessed of the senses of a living man, can stand before the fair face of creation and say in his heart,—"there is no God."

That phrenology, however, is susceptible, like every other branch of human knowledge, of abuse, we willingly, and from painful experience, admit; and we do not hesitate to assert that by some of its ablest expounders the applications of the science have been carried beyond their legitimate bounds, and that the facts have been too often interpreted to the exclusion and to the prejudice of revealed truth. It has also always appeared to us that the connection established between individual portions of the brain and particular mental faculties, does not involve that addition to our real knowledge of the nature and of the laws of mental and moral phenomena which some able writers seem to imply, since it must be admitted, that much general knowledge had been previously acquired, and that we are still restricted to the study of the instrument of the mind alone, of which we know nothing beyond some of its grosser modifications, and are wholly ignorant of the nature, and but very imperfectly acquainted with the modes of acting, of the mind itself; our analysis of the functions of the latter being throughout incomplete, and in many of the details most unsatisfactory. flimsy and superficial philosophising has also, we believe, resulted from the popular phraseology of the science; and that to regard the system in its present form as a complete elucidation of our moral and intellectual machinery, and to contemplate its progress and diffusion as the means of man's future regeneration, is to mistake a very small part of the problem for the whole, and to encourage hopes directly at variance with the statements of Revelation.*

But while we thus deprecate all hasty and intemperate applications of the facts of phrenology, we are far from being insensible of their great scientific and practical value, and cannot for a moment admit that they can be legitimately charged with leading either to materialism or fatalism. Matter, in all its forms and combinations, is but the instrument of its Creator's will, and however mysterious the function it may be destined to discharge, it is never more than a passive agent in the hands of Omnipotent Wisdom, and cannot, without gress absurdity, be supposed to possess a single independent power or property.

In the first place, the phenomena of the inorganic world cannot be regarded as the result of the inherent activity of the different substances by which they are manifested. What, we would ask, is gravitation, but a power to which the material universe is subject, and

[&]quot;That there does exist an harmonious connection between Scriptural Christianity and the Science of Phrenology, will not be questioned by those who believe that the former is of Divine origin, and that the latter is true. For the God of nature is the God of Revelation, and, of course, the works of his hands, and the relations of his mind, must be in harmony with each other."—Harmony between the Scriptures and Phrenology.

whose particular effects are modified by the nature of the instrument on which it acts? What are cohesion, affinity, repulsion, but terms expressive of agencies distinct from all ponderable matter, and on the influence of which the active properties of the latter are immediately depending? Of what infinite modifications is not the atomic universe susceptible, when exposed to electric, magnetic, or galvanic influences? In short, it is evidently nothing more than a vast aggregate of machines, capable of no acts or changes but what are impressed from without, and special in no other respect than as presenting peculiar combinations through which these unseen forces manifest their presence. On what these powers themselves depend, we have no means of ascertaining, nor is it now important to enquire; for our present purpose it is sufficient to prove that the active phenomena of inorganic matter are to be ascribed to agencies distinct from the matter itself.

Now it is a remarkable circumstance that the material selected for our brain is composed of atoms in every respect identical with those which enter into the constitution of innumerable other substances, and that their only peculiarity, as portions of the brain, consists in their mode of aggregation. Is it not, therefore, absurd to suppose that these atoms, in virtue of this peculiar arrangement, should acquire the marvellous and inscrutable properties of mind, or that they should be anything more than, as in the inorganic world, the mere instruments of the unseen and intelligent principle?

And if we cannot suppose that mental phenomena are the simple consequences of the relative position of the particles of matter, an hypothesis, we presume, no one will uphold, can we with greater plausibility infer that mind is enthroned in the individual atoms? Are not these equally compounded with the mass? we admit a republic of many millions of minds, perpetually perishing and renewed, and existing also elsewhere than in the brain? The mere statement of such a scheme is its best refutation, for how could we ever on so shallow a supposition plausibly account for the phenomena of personal identity, memory, conscience, and, in fact, all moral emotions? Are we to admit that each new atomic visitor is informed by his predecessor of the transactions of the past, and thus voluntarily becomes responsible for their various virtues or misdeeds? Indeed the "moral responsibility" of an atom is an association of ideas which can only excite a smile, or a feeling of commiseration for the perverted reason which can, even for a brief moment, be the victim of such an utterly irrational supposition.

The fact is, that finding the perfection of mind and body go together, we begin to suspect that the phenomena of sensibility and perception are in some way or other to be ascribed to the atomic structure of animals, and lose sight of those other facts which prove the extreme shallowness and fallacy of such a conjecture. It has been well observed, that if mind is an atomic function, it is an atomic insanity, for the acts of intel-

ligent beings are in direct opposition to genuine atomic forces, perpetually creating what nature never executes, and moulding unnatural forms by the magic exercise of the will; while all philosophy demonstrates more and more that the phenomena of matter are purely mechanical; mathematically circumscribed, and to be referred to the laws of motion and polarization.

To talk, as some of our teachers unfortunately do talk, of the brain "secreting thought," or of its being the "organ of the mind," in the same sense as we understand the lungs to be the organ of respiration, is to violate all scientific accuracy of expression, to involve fundamental error, and to confound things which are essentially distinct. Mental phenomena do not in the slightest degree resemble the modes of acting of our other organs,—always excepting those evident effects resulting from the admitted influence of matter upon mind,—and cannot, with the least pretence to probability, be classified with them.*

^{*&}quot;Now, it is well to explain that, when the physiologist speaks of the intellectual powers, moral feelings, &c.—as functions of the nervous system, they are not so in the sense in which the term is employed in regard to other operations of the bodily frame. In general, by the function of an organ we understand some change which may be made evident to the senses, as well in our own system as in the body of another. Sensation, thought, motion, and volition, however, are changes imperceptible to our senses, by any means of observation we at present possess. We are cognizant of them in ourselves without the intervention of those processes by which we observe material changes external to our minds; but we judge of them in others only

The assumption of the different portions of the brain originating their respective functions, would, we think, be irreconcilable with strict phrenological principles, since each organ must then be compounded of all the other organs, distinguished merely by an excess in some individual faculty, in the direction of which it has a constant tendency itself to act, and to induce its neighbours to follow its example. Unless we admit this, we cannot rationally explain the mutual influence of the different powers, the modes of combination of our faculties; for how can they modify or control each other, unless they are mutually conscious of each other's dispositions and intentions, and endowed with the power of mutual communication, and of imparting their wishes or commands in a manner which the object of their indignation or solicitude can comprehend? For conscientiousness to restrain acquisitiveness, or benevolence destructiveness, they must surely be capable of appreciating each other's modes of acting or feeling, of perceiving the objects of their activity, of judging how far those objects are justifiable or otherwise, or no possible reason for their inter-

by inference founded on the actions to which they give rise, when compared with our own. When we speak of sensation, thought, emotion or volition, therefore, as functions of the nervous system, we mean only that this system furnishes the conditions under which they take place in a living body; and we leave the question whether the $\psi\nu\chi\eta$ has or has not an existence independent of that of the material organism by which it operates in man as at present constituted."—Dr. Carpenter's Lecture on the Nervous System. 1841. Med. Gaz.

ference would exist; and to imagine such a colloquial intercourse to take place among the differently organised beings which each cerebral organ would thus represent, is quite as adverse to every principle of cerebral physiology, as it is a glaring infringement of all personal experience on the subject.

Another argument may be founded upon the fact that our sensorium is incompetent to express our nobler conceptions! Who does not feel within him a power of discovering a far greater breadth of truth, and of experiencing emotions far more strongly than his organic confinements permit? Who is not sensible that all organic invention, even language itself, is an apparatus from which feeling often shrinks as from an amputating instrument? The intellectual consideration of an emotion, as has been forcibly observed, hungers it to death, and to attempt its description is to undertake its funeral! Our deepest and strongest feelings operate like a freezing mixture on the body, which never indicates the mind's grandeur so much as when reduced to living marble! And are we not conscious of yearnings of the soul, and of looking forward to a state when we shall be disenthralled from those corporeal disabilities by which the full developement of our mental and moral powers is now impeded? When, in short, a spiritual shall replace a carnal body? And can matter thus contemplate with pleasure and joyous anticipation the period of its own destruction? Nothing but contradiction upon contradiction can await the materialist wherever he may

direct his gaze, and to no hypothesis of man's restless mind can we more aptly apply the words of the Wise Man, "that all is vanity and vexation of spirit."

The system of fatalism equally sins against the dictates of conscience, the dicta of revelation, and the evidence of facts.

Phrenology, however, is certainly not justly chargeable with any such consequence, since it does not create, but merely points out in a clearer and more definite manner, those individual peculiarities, the reality of which the most superficial observer must admit; and if it demonstrates their coincidence with certain cerebral conformation, we surely have no right thence to deduce the inference of man being a mere machine. The premises and conclusions have no logical connection whatever, and facts, far more certainly attested, prove the very reverse. The whole volume of Revelation is founded upon our moral responsibility, and it is, indeed, a striking proof of our moral aberration and mental feebleness, when the imperfect results of phrenological observation can weaken our belief in those all-important truths which ages have only sanctified and confirmed, and which repose upon evidence immeasurably superior to any which can possibly accredit the scanty materials of man's feeble philosophising.

Instead of being anxious to disassociate mind from matter, and at once to reject every system which is founded upon such an admission, we should rather freely admit their intimate and close connexion; for a contrary hypothesis would furnish the infidel with the strongest possible argument against the very truths we are so solicitous to maintain. He could prove unanswerably that mind had its infancy, adult age, and decrepitude; that, like the body, it was liable to disease, and ceased with the dissolution of the latter; in short, that its manifestations were, in many respects, analogous to the workings of functions avowedly temporary in their nature, and that, like them, it was destined to die and be no more. To these assertions no satisfactory reply can be offered, when meeting the objector on his own ground, except the admitted dependence of the mind on the corporeal conditions, which at once furnishes a rational solution of what must otherwise often frighten the timid and stagger the wavering. And, lastly, let it never be forgotten, that God's designs are not obstructed by human opinions, and that our ideas of things do not in the slightest degree alter the things themselves. The evidence of a future life, of the immortality of the soul, of man's responsibility and free agency, rest not merely upon general consciousness and conviction, but upon direct Revelation; and to suppose that human science can in any degree interfere with God's intentions is to place ourselves on a level with the Deity himself, and 'madly to endeavour to judge His ways at the tribunal of human reason.

We trifle with our dearest truths, and weaken their vast importance on the minds of others, when we talk of their being endangered, or in any way affected, by the

researches or suppositions of the profoundest philosophers. Real philosophy consists in the discovery of truth for its own sake; in seeking to amalgamate it with what God has revealed of himself; and where this is beyond our power, as often, very often, it is, in attributing our failure to the feebleness of our intellect, and not to the discordancy of facts: resting satisfied with the conviction, that when the veil of human ignorance shall be lifted up, and the circle of our vision be enlarged, we shall then behold the Creator's glory manifested in his works and confess that in wisdom he has made them all.*

Who can contemplate man and not perceive him to be possessed of energies and capacities which are thrown away, or lost, if a few years spent within the trammels of a circumscribed scene make up the sum total of his being? Were his life extended to a thousand years, he snight continue gathering in accessions of knowledge in the varied scenes which now invite his research. And what is this but saying that man is blessed with unmeasurably larger capacities than it is possible to fill during the scant moments of his lifetime; so that if at death he be altogether withdrawn from the theatre of being, he carries down with him into nothingness a rich freight of unemployed and undeveloped energies; and thus leaves behind a record of the wastefulness of the Creator, and furnishes a proof that God bestows what is not wanted, and gives means without an end.

There are embryo powers which are either not at all or only partially

^{* &}quot;It may be taken as a great and distinctly marked principle in the arrangement of nature, that there is nothing wasteful and nothing unmeaning; and yet, unless man be appointed to a higher and nobler existence, it is undeniable that there has been bestowed upon him a vast deal which is truly superfluous, and that no proportion whatever is maintained between the powers wherewith he is endowed, and the achievements which are placed within his reach.

There are others who advance numerous theoretical objections against the probability of an organ like the brain manifesting mind; of the difficulty of conceiving that small portions of an organ so apparently homogeneous in structure, should be the instrument of such varied manifestations; of the impossibility of detecting the form of the brain by examination of the skull, and many other difficulties of a similar nature. To all such objections we would answer, that the evidence in favour of the physiology of the brain, is neither derived from

called forth on earth; there are capacities which will hold unmeasurably more than they are here required to contain; there is a grasp and tenacity of intellect which are as much out of place if there be no futurity, as would be the sinew and grapple of a giant, when only a feather is to be raised or a straw to be wielded; there are unutterable longings which find nothing in the present scene at all corresponding: in short, the soul of man cannot be "filled," it is too big for time, and craves eternity. And what do we infer from this ascertained disproportion between the powers and circumstances of man? Shall not the intellectual anatomist proceed, as in the like case the physical would proceed? Shall we not believe that the excess of energies over present employment witnesses that the soul is appointed to a future and far higher career—that she is destined to expatiate in a sphere, compared to that which now binds her journeyings, which shrinks into a point? And shall we not even from the known restlessness of man, from the fact that creation cannot satisfy the creature, but that the world with all it can afford is too little-shall we not learn from this, that the death of the body terminates not the existence of the spirit; but that in some yet untravelled region, into which the soul shall be hereafter translated, there are objects great enough and glorious enough, to engage our every power, crown our every capacity, and satiate our eyery longing."-Melville,

probabilities or the possible conceptions of any individual, but from accurate and extensive observation: that its truth or fallacy is utterly independent of its being in accordance or at variance with any notions we may happen to entertain, and can only be rationally admitted or rejected by counter evidence similar in character to that on which it was originally founded. The most ardent believer in its truth freely admits that probability was greatly against what facts have demonstrated, and that their own conceptions have been falsified by the result: but might not the same admission be made for every organ of the body, for every flower of the field; all of which equally lav man's pride in the dust, and prove the imperfection of his reason. But if the knowledge we possess of the brain, however inexplicable, coalesces with the evidence of observation in every other department of the organized world, and harmonizes with the laws which regulate the manifestations of organs whose functions are more easily examined, we possess, independently of direct observation, one of the strongest evidences of its truth which man's intellect is capable of estimating.

It has been argued by a most distinguished member of the medical profession, that the comparative anatomy of the nervous system in non-vertebrated animals, many of which evidently possess various powers or instincts common to the higher orders, is unfavourable to the truth of the conclusions obtained with regard to man. To this it may at once be replied, that facts accumulated

in one department of nature can never be invalidated by facts observed in another; and, secondly, the modifications in form, structure, and functions, not only as respects the brain, but every other organ of the body when traced through the descending scale of organisation, are so numerous and important, that we cannot rationally expect to trace a close analogy, except in beings not widely separated in their conformation from each other. How can we appreciate the sensitive existence of the worm or the insect, organised, in so different a manner to ourselves, and occupying so remote a region in the expanse of creation? How can we venture to speculate on the perceptions of the animalcule, whose world is a drop of fluid, and whose fleeting existence, chequered perhaps by various transformations, is destined to run its course in a few hours?

To compare the insect's brain with man's might at once be expected to be negative in its results, so dissimilar are the beings contrasted; and to argue that because both have instinct common to each other, and no common organization can be discovered by which these are manifested, that therefore the supposed function of particular portions of the brain in man are not established, is as rational as the assertion that respiration is not effected by the human lungs, because no such organs can be discovered in many of the inferior animals, though the function itself is undoubtedly common to all.

We see innumerable contrivances in nature for the accomplishment of the same ends, and why should we be

surprised if the nervous system should be affected by those modifying influences by which its form and bulk are adapted to animals so different in their habits and requirements from ourselves? That it is so modified, no doubt can possibly be entertained, and the knowledge of this should make us very cautious in drawing conclusions from its physical arrangement in one department of animal life, as to what it may be in another. Still it should not be forgotten, that there is a greater unity of type in the nervous system than in any other, but the differences in the degree of intensity of its functions are such as often to render any attempt at comparison most uncertain and fallacious. It is, however, but justice to remark, that in those animals whose structure closely corresponds to that of man, and whose functions we are capable of contrasting with our own, observation has confirmed in all the leading particulars, conclusions which were originally deduced from the examination of man alone. The fact, therefore, of our not being able to follow out the physiology of the brain in every gradation of the scale, is only what we might theoretically have anticipated, and cannot be regarded as in any degree adverse to results which have been founded upon the examination of more limited but more comparable materials.

As to the objection, that the physical constitution of animals is essentially different from our own, and therefore that no comparison is possible, we can only reply that such an assertion is gratuitous in the highest degree, and that whether we regard their organization or their acts, there is as much reason to admit the analogy of both to what we observe and find in ourselves, as to consider the organs and functions of respiration and digestion essentially the same, however modified they may be to suit the varying wants and conditions of the individual.

By other objectors, a general assent is given to the fact that the brain is the organ of the mind; and some will go so far as to admit that different regions of the head correspond to the intellect, moral feelings, and propensities; but they yet deny the truth of what they are pleased to term the "details" of the science; forgetting that those very details were established by observation before the inferences to which they deign to affix their assent could have been deduced, and that the determination of the functions of particular regions depended on the prior analysis of their individual parts. The same class of objectors denounce all practical application of our knowledge, even supposing it to be theoretically true; equally unmindful that practice was the original source of our information, the theory of mind, and of the functions of the brain, wholly resulting from reiterated observation, made by different observers at different times; if, therefore, the investigation is not susceptible of becoming practical, the whole science of cerebral physiology deserves no other name than a plausible theory or ingenious speculation.

A still less reflective class of opponents deride the

subject because it is opposed by names deservedly respected in the ranks of science, and has not yet received the sanction of the schools. To all such we would reply, that popularity is no test of truth, and that the latter has never been popular until man's interests or prejudices have been enlisted in its behalf. is feeble is always plausible, because it favours mental indolence: and whatever is indifferent and avoids collision with or fortifies our preconceived notions, soon forms part of our opinions, and gains an easy entrance into the mind. But knowledge which requires reflection to be understood, which interferes with the conclusions we may have formed, which sets aside the systems we have embraced, which convicts us of error, and involves practical consequences, is, of necessity, slow in its progress, and ultimately adopted rather from the evidence of its effect than from a careful examination of the principles on which it may be founded. "He who is allowed to take the start of his species, and to penetrate the veil which conceals from common minds the mysteries of nature, must not expect that the world will be patiently dragged at the chariot wheels of his philosophy. Mind has its inertia as well as in matter; and its progress to truth can only be insured by the gradual and patient removal of the obstructions which surround it." Such a fate might naturally have been expected for cerebral physiology as expounded by Dr. Gall, directly interfering, as it does, with the previous conclusions of the physiologist and the metaphysician; yet, notwithstanding the nur

rous difficulties which have impeded its general reception, such is the force of truth and the high interest of the investigation, that already more societies exist in Great Britain, America, and upon the Continent, for its special prosecution, than for that of any other science whatever.*

Nor is the support of great names wanting for those who pin their faith upon authority rather than upon facts; but to such we can no longer address ourselves, caring little for the assent or dissent of individuals whose belief amounts to little more than imitation, whose love of truth does not extend beyond the trappings with which it may be decked, and who would claim fellowship with error if only patronised by rank and reputation.

Our object in the preceding observations has been to fix the attention of the reader, strongly upon the nature of the evidence and upon the fundamental principles of phrenology, and we sincerely trust that we have not wholly failed in satisfying the mind, of the rationality and general truth of the present system of cerebral physiology; and that we have succeeded in shielding it from some of those objections, which have too frequently interfered with its dispassionate examination, while they have occasionally converted it into an instrument of evil. We should not have insisted upon the much-hackneyed questions of materialism and fatalism, had we not been anxious to dissolve those chains of distressing

In 1836 the number of Phrenological Societies in Great Britain alone, was twenty-nine.

doubt and perplexity which we know the unguarded statements of phrenologists have fastened round the minds of many an ardent but timid enquirer, and because we strongly sympathize with the scruples and apprehensions of those who feel a holy jealousy for the truth which the Bible contains, and are ever anxious to defend it from the contamination of a cold and cheerless scep-Should there still be some who feel conscious that they cannot investigate the subject without detriment to their best and highest convictions, let them at once relinquish the pursuit of what man has discovered for what God has revealed, and this not because of any real discordance between the God of nature and revelation, but because such methods of enquiry are incompatible with the peace, and not adapted for the peculiar constitution of their own minds.

In conclusion, we would simply remark, that if phrenology be true, it possesses the highest claims to our serious and attentive examination, and if false, it admits of the most direct and practical refutation. To facts it appeals, and by facts it can alone be disproved; and we know of no instance of any individual having made himself acquainted with the evidence already accumulated, and who has thus questioned nature for himself, whose conclusions have been adverse to the great and leading principles which have emanated from the researches of the illustrious Gall.



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